THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

Perfect Agriculture is the true foundation of all trade and industry.—Liebig.

Vol. XII.—No. 1.] 8th mo. (August) 14th, 1847. [Whole No. 151.

PUBLISHED MONTHLY,

BY JOSIAH TATUM,

EDITOR AND PROPRIETOR,

No. 50 North Fourth Street,

PHILADELPHIA.

Price one dollar per year.—For conditions see last page.

The Question of Breadstuffs—The Demand and the Supply.

Extract of a letter to the Editor of Bicknell's Reporter, dated

Liverpool, July 3rd, 1847.

For a month past the papers of England and Ireland have teemed with contradictory reports of the present and prospective results of the potatoes "set" this year; some affirming that the disease which was so very destructive last year, has reappeared, and that, most likely, the same disastrous effects will result from it; others stating in equally as positive a tone that there is not the slightest ground to fear any evil to the present planting of potatoes from the "aphis vastator" of Mr. Smee, or any other insect or cause of disease—that the plants in every section of the country look exceedingly healthy, and from a thorough investigation, in many parts of the land, they are induced to believe that the disease will not appear this year, or if it does, it will do but little injury. These reports may be traced to various causes. One set of newspapers is endeavouring to prepare the public mind for what may be the truth—the total destruction of the plant—and the other, fearing the present effect on breadstuffs and trade, endeavours to disguise the truth, or at least, to lessen the evil, by denying at present the appearance of the disease, and then, as the summer advances, to hint remotely at the likelihood of its again preying on the "unfortunate potatoe," as it is called by some. So far, this has been the course with several influential papers that I could name. A month since the idea of disease was laughed at, but the opinion is gradually gaining ground that the potatoe is affected as it was last year, and that the quantity destroyed will be equally as great of this year's crop as of last. Indeed the fact of the disease cannot, with truth, be denied. Even the new potatoes brought to market tell the story too plainly—they appear much spotted and eaten away, and when boiled have a sweet and disagreeable taste, as well as being dark in colour. The disease has, as I feel certain from my own observations, made its appearance in a decided form, and if I am able to form an opinion, it will be more virulent this season than in any previous one, from the fact of its appearing in June this year, and not until a much later period in former years.

As vast numbers of people in the United States are interested in agriculture, it will

be well to inquire what will be the probable effects of a failure of the potatoe crop in Great Britain this year, and whether the demand for breadstuffs which has existed for some time past will be likely to continue. In the first place it is an admitted fact that much less land is under culture of potatoes this year than previous ones. This information has been gathered from undoubted sources. Throughout the north of Ireland, the quantity of potatoes planted in the present year is rather less than one-fourth; in some parts of the south and east, in answer to inquiries addressed to gentlemen cognizant of the facts, I learn that "one-fortieth," "one-seventieth," "one-half," and "one-fourth" has been planted—in the west the proportion will barely reach one-fourth of the usual quantity; and to put down the whole of Ireland as one-fourth, is a full estimate. In Scotland the cultivation of the potatoe has been almost wholly abandoned, except in the immediate neighbourhood of the large towns and cities, so that I think not more than one-fifth is planted in potatoes. In England the proportions are as various as in Ireland. In some sections the land in potatoes equals one-half the usual quantity; in others one-fourth, or one-sixth, so that if I assume one-fourth as the average, I do not think I wander far from the truth.

Mr. McCulloch, in his admirable work, "Statistical Account of the British Empire," estimates the cultivation of "potatoes, turnips, and rape," to extend over 2,000,000 acres in England, of which 1,200,000 at least are usually planted with potatoes. The same work estimates this plant to occupy 2,000,000 acres in Ireland and 200,000 in Scotland. From which estimates I make the following table:

	Land usually cultivated with potatoes.	Cultivated this year.	Uncultivated or otherwise appropriated.
	Acres.	*Acres.*	*Acres.*
England	1,200,000	300,000	900,000
Ireland	2,000,000	500,000	1,500,000
Scotland	200,000	40,000	160,000
	3,400,000	840,000	2,560,000

From this, which is, I believe the most correct estimate that can be made, it will be seen that 2,560,000 acres usually devoted to the cultivation of the potatoe, are, this year, devoted to other purposes or remain uncultivated.

One of the most important questions connected with the annual failure of the potatoe, is the comparative number of persons that can be supported upon a given surface planted with potatoes and any grain that may be substituted. From several interesting works relating to this subject that have come under my notice, I learn that the average yield of an acre of potatoes in Ireland is 400 bushels of 60 lbs., whilst the same land under wheat would produce 28 bushels of 60 lbs., or of oats 64 bushels of 40 pounds. Thus:

1 acre of potatoes produces	24,000 lbs.
1 " wheat	1,680 "
1 " oats	2,560 "

The Commissioner of Patents in his Report to the Congress of the United States establishes the fact that one pound of wheat will furnish as much nourishment as four pounds of potatoes; therefore as one acre of potatoes produces equal to 6,000 lbs. of wheat, it follows that this quantity of land will support as many persons as three and a half acres of wheat. This calculation of the relative amount of nutritious matter in wheat and potatoes, is an extreme one, as many intelligent writers on the subject make the proportion as one to three, instead of one to four, as I have asserted. I am not able to give the same exact data for calculating the relative nourishment which oats bear to potatoes, but will take as a starting point the generally received opinion in Ireland, that one pound of oat meal is equal to three pounds of potatoes. The loss of oats in grinding is about five-fourteenths—hence I draw the following conclusion, that the yield of an acre of oats ground will be equal to 1646 lbs. meal,—then one pound of oat meal being equivalent, in nutriment, to three times that weight of potatoes, it follows that one acre of the latter will furnish as much food as four and eight-tenths acres of oats. These calculations, if based upon proper data, establish the fact that, in order to support a population whose principal food has been the potatoe, on grain, the quantity of land must be increased in the proportion of at least three and a half acres of wheat or four and eight-tenths acres of oats. The immense increase in the cultivation of the potatoe during the last quarter of a century, from being a garden vegetable, has enabled Great Britain to support a rapidly increasing population, at even less prices that when this plant was almost wholly unknown. This increased population still remains, but how are they to be fed? The potatoe has been failing for three years past, and now is too uncertain to be depended upon as an article of food. Hence we see that it occupies less land than formerly, that many have wholly cast it aside as producing a profitless crop. This sudden abandonment of the potatoe is virtually an abandonment of three and eight-tenths or two and a half acres in every four and eight-tenths or three and a half acres,

accordingly as wheat or oats are substituted. So that whether the potatoe crop be good or bad this year is an unimportant matter, when the fact of the extent to which the cultivation of the potatoe has been abandoned, is brought under consideration. By the first table in the article, it will be seen that 2,560,000 acres usually planted with the potatoe, are this year devoted to other purposes, principally to the Swedish turnip, so that the articles substituted will not be of much value in sustaining human life. The crop of potatoes in Great Britain last year, bad as it was, yielded over 12,000,000 tons of good tubers. In this year I find but 840,000 acres planted. So that admitting this land produces 400 bushels to the acre of good sound potatoes, the yield will still be less than that of last year by more than 3,000,000 *tons.* If the plants prove diseased, the deficiency will be increased the amount of the disease—hence it will require 1,300,000 acres of oats, or 1,000,000 acres of wheat to have been cultivated over the usual quantity, to place this country in as good a position as she occupied at the gathering in of the harvest last year, as well as the difference between the amount of stock on hand last June and this June. Official documents furnish me with the following figures:

Stock on hand—June 5th, 1846.		June 16th, 1847.
Wheat,	qrs. 1,477,922	qrs. 10,780
Barley,	106,284	1,012
Oats,	175,653	3,949
Rye,	34	—
Peas,	25,315	312
Beans,	66,644	700
Indian Corn,	2,773	1,905
Buckwheat,	334	328
Flour,	cwts. 1,298,683	cwts. 29,355
Oatmeal,	" 673	" —
Corn Meal,	" 22	" 1,125
Equivalent in grain	qrs. 2,226,710	qrs. 27,694

The same documents enable me to give the amount of grain, &c., taken for consumption from June 5th, 1845, to June 5th, 1846, and from June 5th, 1846 to 1847—as per under—

Foreign grain and flour taken into consumption from	June 5, '45 to '46.	June 5, '46 to '47.
Wheat	qrs. 99,162	qrs. 2,520,793
Barley	97,361	846,166
Oats	477,309	1,444,531
Rye	5	18,474
Peas	90,714	223,994
Beans	184,559	342,413
Indian Corn	184,048	1,802,384
Buckwheat	228	37,975
Flour	cwt. 726,132	cwt. 4,824,875
Barley Meal	—	20,099
Oatmeal	65,846	16,880
Rye Meal	—	2,629
Indian Meal	—	383,664
Buckwheat Meal	—	296
Equivalent to total Grain,	qrs. 1,359,386	qrs. 8,435,730

Showing that no less than 8,435,730 qrs. —equal to the produce of 2,000,000 acres of land—of foreign grain have been consumed during the past year. The aggregate imports from June 5th, 1846, to June 5th, 1847, have been as follows:

	qrs. 6,692,709
Stock on hand June 5th, 1846,	2,226,710
	8,919,419
Deduct quantity consumed	8,435,730
leaving	qrs. 483,689

now on hand. So that the difference between the past and the coming twelve months may be summed up thus:

Deficiency in yield of potatoe crop	Tons 3,000,000
Difference between amount of foreign grain on hand, June 5th, '46 and June 5th, '47,	Qrs. 1,743,021

From the first item, however, must be deducted the produce of the 2,560,000 acres hitherto appropriated to the potatoe, and principally now to the cultivation of the turnip, carrot, and other green crops, which, so far as food for mankind is concerned, is of little value. Looking fairly at all these tables and calculations, I am led to believe that the demand for breadstuffs, from the United States, which probably amounted the past year to about one half the quantity brought into the United Kingdom, will be fully as great the coming season as the past.

For much of the foregoing information I am indebted to the London Economist, which publication has lately devoted much space to the subject of the potatoe, its cultivation, and probable extinguishment.

A few evenings since Lord John Russell in an able speech on the Irish Railway Bill, expressed his belief that the potatoe would fail this year, as it had done for the past two years, and that the famine which had already cut off hundreds of thousands of human beings, was, as yet, in its infancy. In adverting to the prospective condition of Ireland, he made use of the following language: "Take the condition in which Ireland may be in future. Some people say that the quantity of potatoes planted this year is one-fourth, one-fifth, or one-sixth, of the usual quantity. But whatever may be the amount, the potatoe crop is in the utmost peril. *There is at least a reasonable fear that a great portion of that crop may perish.* The people, however, though there was not that appearance for some time, have exerted themselves latterly with great industry to sow the ground that hitherto produced potatoes, with different kinds of corn, and a great deal of land has been sown with turnips, which will produce a far greater amount of

green crop than hitherto. But it has been calculated *that with respect to nourishment, you would require three acres of wheat to replace one acre of potatoes.* Then, can any man look to the condition of Ireland during, I will not say the ensuing six months, but, for the ensuing five or six years, without very considerable apprehensions that the suffering of those people may be extreme. That country now contains people to the amount of many millions, living in the most wretched habitations, and feeding upon the lowest and cheapest description of food. I conceive that this condition has been influenced, not by the policy of the Government existing at the present moment, but by Governments long since passed away. I think it but justice to Ireland to assist them by every means in rescuing its people from their present state, and that therefore the House ought to agree to the proposition now before it."

The effects and extent of the famine in Ireland may be seen in the desolation and almost total destruction of a large village called South Reen, in the west part of the county of Cork, which, the Southern Reporter says, in the early part of the year was composed of sixty-two houses, and contained 320 inhabitants, and now has but 50 inhabitants and eight small hovels remaining, the rest of the people having died of starvation, and the houses having been broken up to furnish coffins for the dead and fuel for the living. This is one among many such places.

With respect to the coming harvest, accounts generally agree that it will be late, but fully an average. This I think will be found to be the case with wheat, but not with oats, which, in almost every section that I have seen, look thin. The weather has been extremely variable. In the month of May, for three consecutive days, the thermometer stood in London at 88, at 50, and 75 degrees, being a *fall* of 38 degrees in 24 hours, and a *rise* of 25 degrees in the following 24 hours. Rain has fallen nearly every day, in greater or less quantities for a month past, and the mercury has kept so low, that fires and overcoats feel quite comfortable. In fact the weather is like our March.

The fluctuations in the corn market within the past two months have been extraordinary. The following were the prices on

	May 5th.	June 29th.	July 3rd.
Indian meal per bbl.	31 a 33s.	20s.	20 a 20s. 6d.
" corn white qr.	70 a 75	39 a	39 a
" " yellow	68 a 72	38 a	38 a
Flour per bbl.	47 a 49	34 a 36	32 a 34

The slightest cloud obscuring the sun for an instant only, seems to produce a change in price either up or down as it may be. Sometimes there is too much rain, up go the rates—then comes a day of sunshine, and its effects are seen as well at the stock market in advancing consols, as at Mark Lane in depressing grain, and so it will be until the gathering in of the harvest.

The Relief Commissioners of Ireland in the Report just presented to Parliament, state that 1,923,361 rations, at an average cost of 2½d. (5 cts.) each are daily distributed, and that 2,622,684 persons are in the receipt of gratuitous relief. This will give some idea of the extreme distress prevailing in that island.

Yours truly,

M. T. M.

Dr. Franklin's Mode of Learning to Swim.—Choose a place where the water deepens gradually, walk coolly into it till it is up to your breast, then turn round, your face to the shore, and throw an egg into the water, between you and the shore. It will sink to the bottom, and be easily seen there, as your water is clear. It must lie in water so deep as that you cannot reach it to take it up but by diving for it. To encourage yourself in order to do this, reflect that your progress will be from deeper to shallower water, and that at any time you may, by bringing your legs under you, and standing on the bottom, raise your head far above the water. Then plunge under it, with your eyes open, throwing yourself towards the egg, and endeavouring by the action of your hands and feet against the water, to get forward till within reach of it. In this attempt you will find, that the water buoys you up against your inclination; that it is not so easy a thing to sink as you imagined; that you cannot but by active force get down to the egg. Thus you feel the power of the water to support you, and learn to confide in that power; while your endeavours to overcome it, and to reach the egg, teach you the manner of acting on the water with your feet and hands, which action is afterwards used in swimming to support your head higher above water, or to go forward through it.—*American Agriculturist.*

Clubfoot in the Horse.—A fine black wagon horse, the property of Mr. Millet, miller, of Newton St. Cyprus, was some time since sent to Mr. Tremlett's kennel to be slaughtered, being considered incurable, having a distortion of the foot from a contraction of the sinew, which made him walk on the front of his hoof, with the heel elevated perpendicularly. Being an animal in such good condition, Mr. Tremlett was un-

willing to destroy him. He therefore requested Mr. Read, veterinary surgeon, to examine him; who decided that the only chance of rendering the animal useful would be the division of the great flexor tendon of the leg. Accordingly the operation of tendotomy, or dividing the tendon, was performed. Ten days after the operation he walked flat on the sole of his foot: one month afterwards he was put to the plough. He is now as useful as any horse on the farm, and performs all the duties a horse is required to perform. Four months have elapsed since the operation was done; a fair trial has therefore been given to test the utility or inutility of the operation.—*Western Times.*

Loss of Beef in Cooking.

Beef is the staple animal food of this country, and it is used in various states—fresh, salted, smoked, roasted, and boiled. When intended to be eaten fresh, "the *ribs* will keep the best, and with care will keep five or six days in summer, and in winter ten days. The middle of the *loin* is the next best, and the *rump* the next. The *round* will not keep long, unless salted. The *brisket* is the worst, and will not keep longer than three days in summer, and a week in winter." In cooking, a piece of beef, consisting of four of the largest ribs, and weighing eleven pounds one ounce, was subjected to roasting by Mr. Donovan, and it lost during the process two pounds six ounces, of which ten ounces were fat, and one pound twelve ounces water dissipated by evaporation. On dissection, the bone weighed sixteen ounces, so that the weight of meat fit for the table was only seven pounds eleven ounces, out of eleven pounds one ounce. It appears that when the butchers' price of ribs is 8½d. per lb., the cost of the meat when duly roasted is 11½d. per lb., and the average loss arising from liquefaction of fat and evaporation of water is 18 per cent. With sirloins, at the price of 8½d. per lb., the meat cost, when roasted, 1s. 1 1-6d. per lb., at a loss of 20⅓ per cent. A loss of 18 per cent. was also sustained on boiling salted briskets; and on salted flanks at 6d. per lb. the meat cost 7¾d. per lb., at a loss of 13 1-5 per cent. In regard to the power of the stomach to digest beef, that which is eaten boiled with salt only, is digested in two hours and forty-five minutes. Beef, fresh, lean, and rarely roasted, and a beef-steak broiled, take three hours to digest: that fresh and dry-roasted, and boiled, eaten with mustard, is digested in three hours and thirty minutes. Lean fresh beef fried takes four hours to digest, and old hard salted beef boiled does not digest in less than four hours and fifteen minutes. Fresh beef suet boiled takes five hours and thirty minutes to digest.—*Combe.*

Comparative Nutritive Powers of Green and Dry Fodder for Cattle.—A communication has been made to the Paris Academy of Sciences, by M. Boussingault, on the comparative nutritive powers of green and dry fodder for cattle. Hitherto the received opinion was, that natural or artificial grasses, on their being converted into hay, lost a portion of their virtues. To determine this point, M. Boussingault fed a heifer alternately, for ten days at a time, upon green or dry food, and weighed the animal after each ten days. He found no difference in the average weight; and therefore comes to the conclusion, that the hay made from any given quantity of natural or artificial grass has the same nutrition as the quantity of green food from which it was made.—*London Athenæum.*

Irrigation.

We have repeatedly in the course of our editorial labours, adverted to this subject, and take pleasure in introducing the following very clever extract from *Stephens' Book of the Farm.* Many situations offer facilities for enriching land, and greatly adding to its productiveness, by this method, which are suffered to remain unimproved: and it were well to recollect that every advantage *unappropriated*, is, according to Poor Richard's theory, so much *lost*.—Ed.

The mode in which water acts in producing the effects witnessed in water-meadows, has not yet been completely ascertained. It is not the sediment in the water that alone works the charm, for clear water produces similar results; though, no doubt, enriching ingredients carried by the water encourage the growth of plants more rapidly than clear water, as witness the produce of foul-water meadows in the neighbourhood of Edinburgh. Professor Low has these observations on the theory of the process: "The *theory* of the process of irrigation," says the Professor, "has not been satisfactorily explained. That the effect is not produced by the mere supply of deficient water, appears not only from the period at which the water is admitted, and when in our climate the soil is always saturated with the fluid, but from the circumstance that *the effect is not produced when the water is allowed to stagnate*, and sink down in the soil, but *when it is kept in a current over it.* When the water is suffered to stagnate, the soil tends to produce carices, junci, and other sub-aquatic plants; but when it is kept in motion, and drained off at intervals, the finest grasses peculiar

to the soil and climate are produced. Neither does the fact of the deposition of mud, or other fertilizing sediment, explain the phenomenon; for however such depositions may increase the effect, it is likewise found that water, without the least perceptible sediment, may be employed with success. It has been supposed that the water acts beneficially by maintaining the soil at a higher temperature. Water, at a temperature of 40°, is of greater specific gravity than at a lower temperature; and hence as the water tends to the freezing point, the warmer portion of it is next the ground. Much, however, cannot be ascribed to this cause, in a current so shallow and constant as that which passes over the watered meadow. It is probable, therefore, that the main effect is produced by a mechanical action of the water, acting upon and bringing nourishment to the fibrous roots of the plants."

Although it may be very true, as Mr. Stephens observes, that "however authors may disagree on this interesting subject—the theory of irrigation,—I believe all experimentalists acknowledge that early winter watering is necessary to produce early and abundant vegetation; in what way this operates is, as to practical purposes, less material;" yet it is always satisfactory to man to be able to give a reason for what he does. To this view I shall add another theory of irrigation, that has been suggested by Professor Rennie, late of King's College, London. It is believed by some vegetable physiologists that plants excrete certain matter from their roots, which proves inimical to the health of other plants of the same kind. Hence it is concluded that grasses do not continue permanently in a healthy state in the same site, because they are in time injuriously affected by their own excretions, which, encouraging the growth of plants of a different nature, such as mosses, they spring up and extirpate the grasses. It is supposed to be probable that *every species of grass is not alike affected by its own, or the excrementitious matter from other grasses*, and therefore some species withstand the poison longer than others. Now the water of irrigation, in its descent through the soil and subsoil, washes away or carries off in solution the injurious excrementitious matter exuded by the grasses, and thereby cleanses the soil in which they are growing, free of it. Hence the perennial verdure of irrigated meadows.

In order to arrive at a satisfactory explanation of this subject, and believing that both this theory, as well as the one given by Sir Humphrey Davy, referred to by Professor Low, contains truth, I proposed some time ago a conjunction of the two theories; and the compound theory certainly explains the four great points of irrigation, namely, that it supplies moisture to the soil in dry seasons and in tropical climates; it affords protection to plants against the extremes of heat and cold; it disseminates manure in the most minute manner to plants; and it washes away injurious matter from the roots of plants. The benefits derived from irrigation I therefore maintained are purely mechanical, and doubted the correctness of Sir Humphrey Davy's opinion, when he says that "in the artificial watering of meadows the beneficial effects depend upon many different causes, some *chemical*, some mechanical," because chemical action only commences *after the act* of irrigation has ceased, as the nature of the following particulars attending irrigation will show. No doubt, the effects of the substances, whatever they may be, which are deposited by the water of irrigation, may be chemical, as well as those of manure applied to grass by the hand of man. But the act of the water in depositing fertilizing materials, can be no more chemical than that of the instruments used in spreading dung upon the soil. The truth is, that whenever the water of irrigation, or the substances contained in it, act *chemically* upon the grass or soil, while subjected to the process, that moment irrigation proves injurious to the plants. The chemical action and the injury are both evinced by the same phenomenon, namely, the existence of white scum floating on the water. "If the weather should be mild," observes Mr. Stephens, "and you suffer the water to run over the meadow *too long without intermission*, a white scum is generated, which *is very destructive to the tender grass.*" The particulars of irrigation I referred to are these: "The operation of water bringing matter into minute subdivision; the sediment which it contains when used in irrigation being minutely distributed around the stems of the plants; water protecting plants in irrigation against the extremes of heat and cold, by completely covering and embracing every stem and leaf; and the supplying of moisture to the soil and washing excrementitious matter out of it, are all purely mechanical operations." For, "*could the hand of man* distribute manure around the roots and stems of grass as minutely and as incessantly as turbid water; could it place a covering of woollen texture upon each blade and around each stem of grass, as completely as water can embrace each plant and keep it warm; could it water the grass as quietly and constantly as the slow current of irrigation; and

could it wash away hurtful matter from the soil as delicately from the fibres of the roots of grass as irrigating water, there *would be no need of irrigation*; the husbandman could then command at will verdant pasturage for his flocks and herds, throughout the year, and in the driest season. *His mechanical* agency would be as effective as irrigation; but constituted as the relative state of things at present is, between man and the action of physical laws, he employs irrigation as an instrument of his will, and induces nature to assist him in maintaining his live stock by an application of her peculiar mode of acting, under his own guidance, but in which she undoubtedly displays her superiority over him, both in perseverance and dexterity."

Great Yield of Wheat.

Having sometimes seen in the Cecil Whig, accounts of extraordinary agricultural productions, I am induced to contribute my mite to the good cause, by forwarding an account of my present wheat crop.

The ground was in oats last season, and almost as soon as it was taken off, the manure was hauled out, stubble broken up, well harrowed, and then left until the 25th of August, when I commenced sowing the Mediterranean wheat upon it at the rate of a little more than two bushels to the acre, and ploughing in pretty deep; then ran a large harrow over it, and left it. I think I have discovered several important advantages from thus early sowing, and ploughing in. In the first place it gives the wheat an early start, and consequently a strong and vigorous root, and it is not near so liable to be thrown out by the winter frost, and as was the case with mine, the first growth was to all appearance destroyed by the fly, but this proved to be no injury to the plant, which having an early start stooled out wonderfully from the root, as will appear from the samples I have sent as the produce of two grains, tied up separately. There are 55 stalks to one, and 54 to the other, and I presume they will yield about 3000 grains of good sound wheat. Yesterday I shelled out the heads of a single grain numbering 52 stalks and counted them carefully; they numbered 1307 grains. I have the produce of another grain numbering 58 stalks, which I have no doubt will yield 1500 grains of wheat. This may appear almost incredible, and I could hardly believe the evidences of my senses that such could be the result, but I took the several parcels as they were pulled up by the roots in the field, and washed them till there was scarcely a particle of dirt remaining, and then examined them very minutely, and the result was as I have described it; it was only the product of one grain. I have, I believe, without a solitary exception, obtained better crops of wheat by ploughing in, than when I harrowed in. Wheat sown late, and harrowed in, has but a poor chance against the winter and spring frosts.

Peter Askew.

Brick Meeting-house, Md.

Woollen Rags.—Woollen rags, the clippings of woollen cloth obtained from the factories under the name of *shoddy*, and wool dust, and woollen refuse of every description, make a most valuable manure. Indeed, none ranks higher in value. Besides its own intrinsic efficacy, it becomes mixed or strongly impregnated with oil, used in the processes of manufacturing. Its effects are not immediate, and therefore it is not to be considered as a forcing manure, but they are very durable; and when spread upon grass land, its efficacy is great and permanent. It is deemed, in the highest degree, rich in all the elements of vegetation. It is considered extremely valuable as an application to hop-grounds. The hop-growers in Surrey informed me that it was to be preferred to any other manure. It is deemed best to mix it very copiously with earth or mould; and in this way it should be repeatedly shovelled over, in order to assist its decomposition.

Mr. Hannam, in his excellent little treatise upon waste manures, states the case of a farmer, who, on applying eight tons of shoddy compost per acre, obtained nine tons of hay, in a small hilly field, which before never gave him four tons. It is transported in large sacks, and is a regular article of merchandise.—*Colman's Tour.*

Show me the cottage, the roses and the honeysuckles on which are neatly trimmed and trained, and the garden behind is well stocked with culinary herbs and a few choice flowers, and I will speedily find you a cottager who never wastes his time or his money, or debases his mind, and learns the "broad road which leadeth to destruction," in the contamination of an ale-house. If the garden is neat, one may rest assured that the cottage, however humble it is, is the abode of contentment and happiness; and that however simple the fare may be, it is wealth and luxury in full store to the inmates, because they are satisfied with it, and grateful for the possession of it.

Dodman says "a very little care and judicious selection of sorts will insure pears *daily* from the end of July till May."

Interesting Agricultural Facts.

Read before the Farmers' Club and communicated to the Farmer and Mechanic for publication.

BY H. MEIGS, ESQ.

The care of enlightened and patriotic men has caused the introduction of precious plants and animals into countries, which had never, since creation before possessed them.

Lucullus first introduced cherries into Italy, from Pontus, and he first planted them in his princely gardens in Rome, where they have ever since flourished, as greatly as they had done in Pontus.

The Malus Pyrus, or rather Epyrus, (the pear) from Epirus. The peach (Malus Punica) from Carthage. The apricot (Malus Armeniaca) from Armenia. The quince (Malus Cydonia) from Syria—these after having been naturalized to the climate of Italy, were afterwards transplanted by the Romans, into all the countries conquered by them. The tree from which the first sweet oranges were raised in Portugal, is, perhaps, still living in China, and they bear the name of China oranges, for they were not natives of Portugal.

Rice was first introduced into Carolina about the year 1740.

In England, about the year 1500, there were no musk melons, sallads, cabbages, turnips, carrots, nor any of those garden roots so important now to the people. Long after that, the cauliflower was introduced, which now grows so finely in England. About the years 1525 to 1550, hops and pippin apples were first introduced; gooseberries, also currants, roses, July flowers, carnations, asparagus, oranges, beans, lettuce, plums, musk roses, tulips, and artichoke. About the year 1769, the rhubarb plant was deemed so naturally confined to Tartary, that the Emperor of Russia regulated the quantity brought to market and the price of it, much in the same way that the Dutch have done cloves and mace, and they made England pay annually nearly a million dollars for it, and it now grows in England to great perfection, and as easily as the common dock.

As to birds, the peacock was introduced into England from the East Indies, the pheasant from Asia Minor, and it flourishes in England.

Our barn yard fowls were brought originally to England from Asia. Our horses are from Barbary, Turkey, Persia, Andalusia of Spain, and from Arabia, and they flourish among us. James I. introduced the cattle.

Before the reign of Tiberius it was supposed that the silk worm could exist only in China and Persia. But about the times of Augustus and Tiberius some enterprising man carried the eggs to Greece, where they were found to hatch and thrive perfectly well. They afterwards were carried to Asia Minor, but it was several ages before they were naturalized in Italy by the Francs.

Good Advice to Boys.

Be *brisk, energetic and prompt!* The world is full of boys,—and men too—who drawl through life, and never decide on any thing for themselves—but just draggle one leg after the other, and let things take their own way. Such people are the dull stuff of the earth. They hardly deserve as much credit as the wooden trees; for trees do *all the good they can*, in merely growing, and bearing leaves and seeds. But these drawling, draggling boys, do *not* turn their capacities to profit, half as far as they might be turned; they are unprofitable, like a rainy day in harvest time. Now the brisk energetic boy will be constantly awake, not merely with his bodily eyes, but with his mind and attention—during the hours of business. After he learns what he has to do, he will take a pride in doing it *punctually* and *well*—and would feel ashamed to be *told*, what he ought to do without telling. The drawling boy loses in five minutes the most important advice; the prompt, wide-awake boy never has to be taught twice—but strains hard to make himself up to the mark, as far as possible out of his own energies. Third-rate boys are always depending upon others; but *first-rate boys depend upon themselves*, and after a little teaching, just enough to know what is to be done, they ask no further favours of any body. Besides it is a glorious thing for a boy to get this noble way of *self-reliance*, *activity*, and *energy*. Such an one is worth a hundred of the poor draggling creatures, who can hardly wash their own hands without being told, *each time*, how it is to be done. Give me the boy who does his own work promptly, *and well*, without asking—except once for all, at the beginning—any questions; the boy who has wits about him, is never behindhand, and don't let the grass grow under his heels.—*Farmer and Mechanic.*

Manure for Strawberries.—The best top-dressing for strawberry beds is a little leaf mould, pointed in with a fork, early in March. A good addition also is nitrate of soda, three ounces to each square yard, sprinkled over the surface at the same season. Bonedust and charred turf, pointed in with a fork in October, have also been found highly beneficial.

Preservation of Timber.

Timber is sometimes seasoned by previous total immersion in water. It has been held that this process favoured the thorough drying, by dissolving out certain deliquescent salts which are found in the sap, and prevented after-shrinking. However this may be, it is quite certain that in warm countries especially, it is advantageous to sink fresh-cut timber in water, with a view to prevent it from splitting, apparently in consequence of drying too quickly. The old Venetians sank for a season in the sea, the oak timber which was destined for the construction of their galleys. Elm and beech, in particular, are said to improve greatly by the process of submersion in salt water, and to dry afterwards perfectly by simple exposure to the air.

Duhamel advises strongly, that in shipbuilding all timber from trees already on the decline should be rigorously rejected; and this the rather, that the most careful examination often fails at first to perceive any alteration in the heart-wood of such trees, although it never fails to show itself by and by at a sufficient interval after the felling. This is undoubtedly a precept which it would be well to bear constantly in mind; but timber does not always carry within itself the germs of its speedy decay; and that which has been seasoned with the most scrupulous care, and was originally of the best quality, does not escape the rot when it is placed under unfavourable circumstances, any more than that which was of inferior worth and less carefully treated.

Wood appears to perish or decay through three principal and appreciable causes, which all require similar conditions to come into play, viz., stagnant air, sufficient warmth, and moisture. Like the generality of organic substances, wood, when moistened in contact with the oxygen of the air, and under the influence of a sufficiently high temperature, undergoes decomposition of a kind which has been compared to a slow combustion, upon which we shall find occasion to say more by and by. It is with a view to escape this kind of decay as much as possible that timber is never, or ought never, to be employed in the construction of ships and buildings until it has been thoroughly seasoned.

Besides this first cause of decay, which may be prevented in a great measure by using certain precautions, wood has still two redoubtable enemies, insects and certain plants of the family of the cryptogamiæ. In one case, the wood perishes because it is fed upon by certain animals which live and grow at its expense; in the other it decays because it serves as the soil to one crop of fungus after another which luxuriate on its surface, while their roots penetrate deeply into its interior. There is nothing in either accident which excites astonishment, now that we know the intimate constitution of wood. We know, in fact, that among the number of soluble principles which impregnate the woody tissue, there is an azotized matter analogous in its composition to those that exist so abundantly in all the ordinary esculent vegetables. There is, therefore, in wood ample nourishment for the insects which we find living on it; and if I state now—reserving to myself the opportunity of demonstrating the fact—that all organic azotized matter becomes an active manure by decaying, we shall understand how it happens that plants, which have the power of living in dark, warm, and damp places, wax and multiply in the joistings of houses, and in the ribs and planks of ships, causing a *dry rot*, which separates the integral layers of the wood, and reduces the strongest beams to dust.

The rapidity with which wood is, in some circumstances, devoured by insects, is almost incredible. Some years ago the thermites, or white ants, spread in such strength through the docks and arsenals of Rochelle and Rochefort, that in a very short space of time serious damage was done. A learned entomologist, M. Audouin, commissioned by the ministry to take information on the subject, reported that the ravages committed by these insects had been very considerable. But it is principally in warmer climates, where the temperature is steady throughout the year, and where there is no winter, that the thermites occasion the most alarming injury. At Popayan, for example, it is difficult to meet in a building, even of recent construction, with a piece of wood which is not gnawed and ant-eaten. The hardest and most compact woods do not always resist the attacks of these insects, which, further, do not spare every kind of odorous wood, cedar for instance. In such countries it is altogether impossible to preserve books and papers. I remember, in connection with this matter, that having received instructions to examine the archives of Anserma, one of the oldest towns in Popayan, in 1830, I found nothing but books illegible and in pieces; nevertheless, the date of the documents, which it was my business to consult, could not have been older than the year 1600.

The dry rot, which results from the development and growth of cryptogamic plants upon wood, is the curse of navies. Mr. Knowles is of opinion that this disease of

timber has been known from the most remote antiquity; he believes that he can even recognise dry-rot in the sore called house-leprosy, mentioned in the 14th chapter of Leviticus. A ship attacked by dry-rot, becomes in a very short space of time unfit for sea. The Foudroyant, of 80 guns, is often quoted as an instance of its destructive powers: launched in 1798, she had to be taken into dock and almost rebuilt so soon as 1802.

The fungi which induce dry-rot have been studied by Sowerby. Mr. Knowles signalizes two species in particular; one of which he describes under the name of *Xylostroma giganteum*, the other under that of *Boletus lacrymans*. The Xylostroma does not extend beyond the part where it is developed; but the Boletus, on the contrary, is propagated with frightful rapidity, and disorganizes deeply and to a great distance around the texture of the wood where it once appears. These fungi are generally found on board ship, between the planking and the ribs, in damp situations, and where the air is scarcely, if ever, changed.

The temperature most favourable to the development of dry-rot has been found to lie between 7° and 32° cent. or 45° and 90° F. These are the extreme limits: below the minimum, vegetation languishes; above the maximum, the fungi droop. With this piece of information it was hoped that vessels might be freed from dry-rot by raising the temperature sufficiently. The trials were made in winter in the "Queen Charlotte," the air in the lower part of the ship being raised as high as 55° cent. or 130° F. But the general result did not answer expectations; for although the fungi were destroyed in the lower part of the vessel, it was found that their growth was rather favoured in places at a certain elevation above the kelson. The warm air, in fact, as it rose through the timbers became robbed in its course, and deposited the greater portion of the moisture which it had taken up at a lower level. Above the orlop deck, consequently, there was just about the temperature and the quantity of moisture most favourable to the development of the fungi. The evil was therefore only transplanted, not destroyed. It was now proposed to heat the "'tween decks" at the same time as the hold, making use of due ventilation; but this method of proceeding has not been put into practice.

The extreme slowness of the growth of trees, stands in strong contrast with the rapidity of their decay when they are reduced to the shape of timber and employed in constructions of almost every kind. In countries well advanced in civilization, every description of industry tends to consume timber, at the same time that an increasing population is every day contracting the extent of forest land, and diminishing the number of trees grown. In some countries, indeed, it is certain that the production of wood for all purposes, firing, &c., &c., is no longer in relation with its consumption. The price of the article, necessarily high, is therefore tending continually to rise; and it is not surprising that various measures have been suggested and essayed of giving this perishable material greater durability.

The well-known great durability of certain trees, the teak, ebony, lignum-vitæ, &c., naturally led to the conclusion that the fatty or resinous matters which they contain have the property of preserving the wood against the greater number of the ordinary causes of decay; and unctuous and resinous matters appear in fact to have been the means most anciently employed to preserve wood from the air, from moisture, and from the attacks of insects. But it is scarcely necessary, at the present time, to say that these varnishes only accomplish the object proposed in their application in a very imperfect way; paint and varnishes crack, rub, or scale off with the slightest friction; nor do they always remove the causes of internal decay; on the contrary, by preventing more complete dryness, they sometimes even provoke or favour them, when applied to tender, that is, imperfectly seasoned wood. Merely laid on the surface, indeed, it has always been seen that varnishes of any kind were but indifferent protectors; that a really good preserver ought to penetrate the substance of the wood, and unite with the tissue itself. But herein lay the whole difficulty; how was the needful penetration to be effected? for the number of chemical substances, from which good effects might reasonably be anticipated, is pretty considerable,—unless, indeed, we find ourselves prevented from using them by the consideration of the price; for it is imperative that any preservative proposed be extremely cheap.

For a long time the only process for effecting the penetration of timber by substances proposed for its preservation was to macerate them for a longer or shorter time in a solution of the substance. But this means was found as tardy of accomplishment as it was ordinarily imperfectly effected; to have got to the heart of logs of large scantling, years would have been required. Any delay, however, in such circumstances, is of itself a cause of enhanced price of the article. By and by a variety of processes, the element in one being pressure, in another exhaustion, were put in practice, and very

satisfactory results obtained. M. Breant showed, that by means of strong pressure he could fill the largest logs from one end to the other with any unctuous or resinous substance proposed, in the course of a few minutes. M. Moll, a learned German, proposed creosote introduced in the state of vapor by forcing, as an effectual means of preserving timber, which it probably would be found; but the high price of the antiseptic, were there no other objections, would necessarily be an obstacle to its general employment. The same objection applies to the bichloride of mercury,—Kyan's patent; and arsenic is inadvisable from its deleterious effects upon the animal economy. Some workmen are said to have lost their lives in consequence of working timber which had been impregnated with a solution of white oxide of arsenic.

It had been observed that vessels engaged in the lime-trade lasted long; and then it was naturally thought that by impregnating the wood to be used for ship-building with lime, it would be rendered more durable. But the result did not answer expectation; the timber treated with lime did not even seem to last the usual time.—*Boussingault's Rural Economy.*

From the Farmers' Library.

A Productive Farm.

Mr. Mordecai Abraham is a neighbour of mine, living upon rented land, and pays $1 50 per acre for ninety-six acres. He has just given me the following items as the amount of his crop for the year 1846. His farm has been worked exclusively by himself and son, with a team of two horses.

	Bushels.
28 acres Winter Wheat	858
9 acres Spring Wheat	164
39 acres Corn	2,050
5 acres Oats	300
¼ acre Potatoes	50
A patch of Onions	7
Total,	3,429

In addition to the above, Mr. A. had one and a half acres of flax, which was a good crop, but not saved for want of time; and three to four acres of spring wheat which he was unable to harvest. He also had nine acres of good timothy hay, which was well saved; and one hundred and sixty bushels of apples, one-half of which were sold for fifty cents per bushel.

The wife and daughters made a piece of silk—enough for 11 handkerchiefs, which sold for $1 50 each, and they have kept a hand-loom in motion for most of the season.

For harvesting and threshing, Mr. A. paid 161 bushels of wheat, which, with the $144 rent, shows the amount to be deducted from the above, in estimating the value of the labour of the family.

I send you this for the purpose of showing your readers abroad what *two men* and *two horses* can do in the way of furnishing something to eat, when they set themselves to work upon our prairies. The land upon which the above crop was raised is not above a medium quality of the lands in this region; and I verily believe there are 30,000 sections or square miles in the State which are as productive as the farm in question. If I am right in this opinion, there are then 120,000 quarter sections which might be made as productive as the one upon which Mr. Abraham raised the above crop. Again, we have some 20,000 square miles not so fertile, which may be set down at half the productiveness of those first named—equal to 40,000 more quarter sections—making in all 160,000 farms of equal productiveness with the above. Now if you will take the trouble to *cipher up* how many people could live comfortably upon the provisions raised by Mr. A. as before stated, and then multiply that number of people by 160,000, you can, I think, give a pretty shrewd guess how many human beings can be fed upon the productions of Illinois when the same shall be brought into tolerable cultivation.

E. Harkness.

Fruit Farm, Peoria co., Feb. 1847.

Ploughs.

Although the Dutch and Flemish made considerable improvement in the plough as early as the sixteenth century, and their example was followed up by the Scotch and English, bringing it to a high state of perfection, in Blythe's Rotherham plough, as early as 1730, I cannot learn that it received any attention on the part of American mechanics, with a view of its improvement, till after the close of the Revolution. Indeed, till quite recently, the ploughs in general use throughout the United States were extremely rude and highly primitive in their construction. A winding tree was cut down, and a mould board hewed from it with the grain of the timber running as nearly along its shape as could well be obtained. On to this mould board, to prevent its wearing out too rapidly, were nailed the blades of an old hoe, thin straps of iron, or worn-out horse-shoes. The land-side was of wood, its base and side shod with thin plates of iron. The

share was of iron with a hardened steel point. The coulter was tolerably well made of iron, steel-edged, and locked into the share nearly as it does in the improved lock-coulter plough of the present day. The beam was usually a straight stick. The handles, like the mould board, split from the crooked trunk of a tree, or as often cut from its branches: the crooked roots of the white ash were the most favourite timber for plough handles in the Northern States. The beam was set at any pitch that fancy might dictate, with the handles fastened on, almost at right angles with it, thus leaving the ploughman little control over his implement, which did its work in a very slow and most imperfect manner.

It will be proper to give some account of the improvement made in ploughs in England and Scotland, before proceeding to the consideration of the improvement in America.

James Small, a Scotchman, constructed a plough on true mechanical principles, and was the inventor of the cast iron mould board for it as early as the year 1740. He was extensively engaged in the manufactory of ploughs and other agricultural implements in Berwickshire, Scotland, for a great number of years. His ploughs are still considered as a standard for the elements of good plough making, notwithstanding the improvements since his death up to the present day.

The basis of Small's improved plough was the Rotherham plough, which had been quite generally adopted. His improvement consisted in the better form of the mould board and *particularly* in making it of *cast iron*. His plough, rendered cheaper by the easier construction and the greater certainty of the regular form of the mould board, obtained a general use in all the north of England and in Scotland. In its turn Small's plough became the basis of the improved Scotch plough, so widely known and used now in both England and Scotland.

From the year 1740, when Small first introduced the cast iron mould board, there seems to be no evidence that any other part of the plough was made of cast iron until the year 1785, when Robert Ransome, of Ipswich, England, introduced the *cast iron* share. This was an improvement of vast importance and was soon followed by others. From the facility and economy with which parts requiring nicety and uniformity in their form can be made and multiplied to any extent when cast, cast iron superseded wrought iron wholly in the plough.

The next improvement in the cast iron parts following Ransome's cast iron share, was made by a plain farmer in Suffolk county, England. It consisted in making the bottom of the land side of cast iron. This was immediately followed by making the whole of the land side of cast iron, and soon after the first introduction of the cast iron share, ploughs were produced of cast iron in all parts of their bodies.

Thus about the year 1790 the plough in England was perfected to the point, that it was made entirely, in its body, of cast iron.

A single improvement yet remained to be effected, viz: a greater hardness in the share; and this was made by Robert Ransome, who in 1803 took out a patent for *case hardening*, or what we term, *chilling* the points and edges of the share. When in England, in 1841, I became acquainted with his son and successor in business, Mr. Allen Ransome, in whose admirable work on ploughs and agricultural implements, the curious reader will find full particulars in regard to this interesting subject.

It will thus be seen that the *cast iron* plough is wholly an English invention.

The first person in America, of whom I find any record as having taken up the plough with a view of its scientific improvement, was Thomas Jefferson of Virginia, late President of the United States. He invented a new mould board, an account of which he first gave to the French Institute; but more minutely describes it in a letter to Sir John Sinclair, in 1798. Having never seen this plough of Mr. Jefferson, I am unable to give any opinion as to its merits; but understand, indirectly, that it was a great improvement upon those generally then in use in Virginia and further south.

We now come to a very important improvement in the material and manufacture of ploughs in America, which so cheapened their construction, that those for one horse, strong and well made, after the most improved patterns, can now be had in New York at $2 to $4 each, and a two-horse plough from $5 to $7; thus placing this most useful of all agricultural implements, within the means of every farmer, however limited they may be. If the farmers are not furnished with good ploughs now, the fault is their own entirely.

The important improvement which I allude to, is, the cast iron plough complete, which as near as I can ascertain, was made about the year 1796, by Mr. Newbold,* an

* This, we apprehend, was Charles Newbold, of Springfield, in Burlington county, an ingenious man, who gave much time to the improvement of the plough, and died within a few years up the North River.

We well remember the barbarous wooden mould board of our boyhood, with pieces of iron hoop nailed

ingenious farmer of Burlington, New Jersey. His was undoubtedly the first cast iron plough ever used in the United States, and to him should be awarded the honour of its introduction, although thus far it has been generally accorded to Jethrō Wood of New York, who had the shrewdness to get out a patent for one in 1814. He undoubtedly derived his idea from Mr. Newbold—who took no interest in getting it into general use—or from those of English manufacture, and was never entitled to the least merit as the originator or improver of the cast iron plough. Mr. Newbold made his improvement without any knowledge of the progress in the same direction, in England.

Mr. Peter T. Curtenius, of the city of New York, kept ploughs for sale as early as 1800, the shares of which were cast iron; but whether these were got up by himself or made from Mr. Newbold's patterns, I have not yet been able to ascertain. These ploughs were highly approved, as may be seen by reference to an article on the subject, by Col. John Smith, in volume first, page 173, of the Transactions of the Society of New York for the promotion of Agriculture, Arts and Manufactures, the second edition of which was published in 1801.

Mr. Newbold's plough not having obtained a general use, even in his own neighbourhood, the old wooden mould board and wrought iron share still prevailing for many years after the introduction of his complete cast iron plough, others took up the subject in part.

Mr. Peacock, of New Jersey, made a great improvement in ploughs as early, I am informed, as 1805, by substituting the cast iron for the wooden mould board. The form of this, however, and the manner of putting his plough together were very imperfect.

In the year 1808, Peacock's plough was so far improved as to be made share and mould board both of cast iron; and in various forms was extensively used in the vicinity of New York, on Long Island, and in New Jersey, under the name of the Peacock plough. This was six years prior to the first patent obtained by Wood.

Mr. Edwin A. Stevens, of Hoboken, New Jersey, took up the plough in 1817, and for nearly four years devoted his ingenious talents to its improvement. He often tested it with a very accurately arranged dynamometer, and in various other ways, and against the best ploughs within his reach, and at length succeeded in making it so perfect that it found great favour with the public, and has been a standing model for most of the best ploughs since manufactured in the United States. He informs me that he took his idea of a cast iron plough from Mr. Newbold's invention.

Mr. Stevens patented his plough on the 23rd of April, 1821, and was the first in this country to make use of the process of *cold chilling* the base of the land-side and lower edge of the share—a most important improvement—which was also embraced in his specification for a patent.

Mr. Davis of the District of Columbia, Mr. Bergen of Long Island, N. Y., and Mr. Nourse of Massachusetts, have improved the mould boards and other parts of the plough more or less, for particular purposes; and so far as I can learn, have done the same independent of any knowledge of each other at the time. These gentlemen are consequently entitled to more or less praise for their improvements.

There are probably one hundred different kinds of ploughs to be found in the United States, each of which has its advocates, and is entitled to more or less merit. To undertake a description of these would be tedious, I shall therefore content myself with a brief summary of such as are best adapted to particular purposes.

1. *The Root Breaker.*—This is a powerful implement, made without mould board, something like a subsoil plough. It has a thick, strong coulter running down from the beam, locking firmly into the point, which is wrought iron, steeled at the end. The object of this plough is, to operate in newly cleared forest land, for the purpose of cutting up the roots of the trees and preparing it for cultivation. It will sever roots three inches in diameter with ease, and after once passing over the ground, the common mould board plough can work it freely.

2. *The Prairie Plough.*—This, like the one above, is used for breaking up a virgin soil; but as it is the thick fibrous roots of grass centuries old that are to be severed, instead of those of forest trees, its construction is entirely different. Those now most approved, have their mould board and point terminating flat and wide. The point is of wrought iron, steel-edged, and must be kept very sharp in order to work well. Like the Root Breaker, it requires a powerful team to move it.

3. *Sod and Stubble Ploughs.*—Among the best we know for this purpose, are the different kinds made by Messrs. Ruggles, Nourse and Mason, of Worcester, Massa-

---

on it—the beam and handles partly as long as a row of corn; and we well remember too, the introduction of Peacock's plough, that opened a new era in the practical part of a ploughboy's life.—Ed.

chusetts. Their improvements are quite numerous, one of the most important of which, is their recently patented dial-clevis. Combining this with the draft-rod, it enables the ploughman to run his plough close along side of a fence or ditch, or turn up wet meadows, or rice lands, with the off as well as the near animal treading on the unbroken ground, instead of the open, miry furrow. It also enables him to guage the running of his plough more exactly in its work than any other clevis I have seen.—*New York Agricultural Transactions*, 1846.

From the Farmers' Library.

Mr. Phelps's Durham Cow Victoria.

Messrs. Editors,—In redemption of the pledge made you when last in your city, and in obedience to the wishes of our mutual friends, who have solicited it for your columns, I send a brief notice of my Durham cow Victoria.

She was calved on the 30th day of March, 1841, and slaughtered on the 6th day of January, 1847, being five years, ten months, and seven days old—has had four calves at three premature births, none of which have been reared.

Her standard height was	4	feet	8	inches.
Length from horns to tail	7	"	4	"
Breadth across the hips	2	"	1½	"
Size in the girth	7	"	9	"
Weight on foot			1890	lbs.
Net weight of quarters			1312	lbs.
" " hide			98	"
" " rough tallow			176	" — 1586
Loss in slaughtering,			304	lbs.

She would probably have weighed 2,000 lbs. had she been kept until maturity.

Journalizing the weight of animals having become somewhat fashionable, I will add that I marketed with Messrs. A. D. & H. Reed, of Farmington, the present season, fifteen hogs, averaging 416 lbs., the lightest weighing 332 and the heaviest 524 lbs.

William J. Phelps.

Elmwood, Peoria co., Feb., 1847.

To save Horses from Fire.—"I recommend first, to *blind* the animal *thoroughly*, and second, to unloose or cut the halter, and the terrified animal will, *with kind and gentle usage*, at once suffer himself to be led past, nay, even *through* the raging element. I have myself been benefitted by possessing the knowledge of this plan, and have satisfactorily and practically put it to the test, after all other means that could be thought of—both gentle, persuasive, and compulsory—had been tried in vain."

Potatoe Disease.

At an agricultural discussion at Albany, a few months since, S. Cheever remarked that he had "read much; examined much; experimented much on this subject, and all his investigations had only confirmed him, that this terrible disease was one of those inscrutable dispensations of Providence, sent in its wisdom; sent for its own mysterious uses; and its causes are yet hid from the mind of man. We only know that it exists. It had been supposed to show itself only in this soil or in that, and yet where one person has proved to his own satisfaction, that it was only in this combination of circumstances that it was evinced, it has shown itself in its direct opposite. It was like the cholera, which came and went, no man knew why or whither, but its dreadful work, all saw. It passed over in its destruction, going as it came. He had suffered very little in his own experience, but had seen its effects, and had seen its varied phases, its eccentric features, so much so as to establish to his belief, the truth, that the potatoe disease was a calamity, with no known cause. All Europe had endeavoured to investigate the origin of it. It had been discoursed upon, experimented upon by scientific men abroad, to a greater degree than any other recent subject, and yet the result of all these elaborate and scientific researches had been to establish the truth, that the real causes were hid in the mysteries of a Providence that has motives unknown to men.

American Institute—Farmers' Club.

April 20th, 1847.

Robert Lawrence, Esq., in the chair—H. Meigs, Secretary. Mr. Meigs read the following translation made by him from the *Revue Horticole:* Paris, 1847.

Growth of Potatoes in the earth without stalks or leaves.

Lefevre remarks that the winter culture of potatoes ought to attract the attention of the learned and the practical agriculturists to this curious problem.

Question.—Can the potatoes continue to grow in the earth when the vegetation of their stalks and leaves is suspended by cold? To this question practical men say there is no difficulty, for they find that the potatoes often develope in cellars and in the banks where they are deposited, young potatoes. Besides, what are potatoes but swelled roots or stems?

Last year Mr. Francoeur gave a statement to the Royal and Central Society of

Agriculture, of an experiment he had made after the method of Mr. Chaugarnier.

Potatoes planted about the end of August, gave him a crop at the end of the ensuing winter.

A discussion arose in the society on this subject—and it seems to have been agreed that these potatoes had, in the spring, attained their full size.

Monsieur Masson, in the experimental garden of the Society, planted in August, 1846, the Marjolin potatoes; the growth of the stalks was very slow; at the time of hilling them there were no young potatoes. The cold weather having come, he covered the potatoe bed with dry leaves, and at that time the young potatoes were not larger than the finger's end. Frost came on shortly after; the stalks were completely disorganized, but the vegetation of the potatoes in the earth, nevertheless continued. We recollect that Mr. Vilmorin proved the same facts twenty years ago, when he introduced the Marjolin potatoe by the name of the kidney.

Mons. Naudin.—Agriculture is, in our day, a very complicated science, borrowing for the most part from every other. Besides a knowledge of vegetable physiology which it claims imperiously from every one who takes that career, it also demands an exact appreciation of the different soils, of climate, of local circumstances which often powerfully influence the productions of the earth. We must understand the effects of various manures—what kinds of animals we ought to raise, &c., and in fact, in order to be a good farmer one ought to be a meteorologist, mineralogist, chemist, natural philosopher, and an economist. And it is to these grave and important questions, that the professor of the garden of plants at Paris takes such pains to call the attention of people.

France, says he, is one of those countries in Europe which demonstrates best this great truth, that agriculture is a complex art. With her vast plains of the tertiary formation, her masses of granite mountains, her oceanic regions in the west, her oriental provinces participating in the continental climate of the centre of Europe, with such a varied mineralogical nature of soil, and above all, with her north and south regions—what a study does she present for the philosopher and for the learned farmer.—*Farmer and Mechanic.*

From the Cultivator.

Results of Industry.

The following furnishes a good example of what may be accomplished in farming by laborious industry and perseverance. There are probably many such in our country, and it is proper that they should be held up for the encouragement of others. The writer of this article, it should be remembered, is located in a region which many look upon as very unfavourable to agriculture.

I commenced clearing land from a wilderness estate in 1820; the growth was heavy hard wood of beech, maple, birch, with some hemlock and spruce. I felled but little each year, at first, as I had neither ox, horse, nor man to help me, unless I hired or exchanged my own labour for them;—the latter I often did. I practiced clearing every movable thing from the land, sowing it with some kind of grain and grass seed. It scarcely ever failed to produce a good crop of grain, and afterwards grass in abundance, for ten, and sometimes for fifteen years. I have cleared, with the assistance of my own sons, principally, about one hundred acres of woodland. I have about twenty-eight acres well cleared of stones, which is in a good state of cultivation. My stock consists of oxen, cows, and young stock, to the number of twenty to twenty-five, one horse, and about forty sheep. I have plenty of hay for my stock, and sell from five to ten tons yearly. My barn, previous to 1846, was 40 by 50 feet, standing where the ground sloped to the southwest, about four feet in fifty. In 1846 I built an addition on the lower side of the old part, one hundred and two feet long and thirty wide. I have dug a cellar under the old part seven feet deep—dug a trench still deeper for drain under the wall, which is substantially built under the two sides and upper end of the old part, leaving the lower end immediately connected with the space or cellar under the new one, which is from six to ten feet deep,—without a single post to interfere with carting,—as the floor over it, with its contents, is supported by king posts. My cattle are watered under the new barn from a well. Young stock is fed at racks under the barn. The cattle are chiefly tied over the cellar of the old barn, and are kept abundantly littered with straw, &c. The manure is thrown into the cellar through a scuttle.

John McGlauflin.

Charlotte, Maine, March, 1847.

Fuel in Paris.

It is quite cold to-day, and I have been obliged to have a fire; I therefore purchased two francs' worth of wood. There is a *marchand de bois* across the street, who occupies not a spacious wood-yard, as you would probably imagine, but a small shop, and that shop, small as it is, is large enough to stow

many thousand francs' worth of this precious article. They would no more think of exposing it to the depredations of the needy and unprincipled, in the open air, than a silversmith with us, would pile up his wares in a yard; why, while the *marchand de bois* was looking away, some scoundrel might fill his pockets and be off. For two francs I got twenty-three sticks, short sticks, rather small; and for two sous each I purchased two bundles of kindlings in fagots. It is, I believe, about a franc and a half for fifty pounds. When a fellow was going to buy a foot, they hardly thought him sane, and inquired if he would pay on the spot. The shop of the *marchand de bois* is decorated outside with paintings of piles of wood in perspective, presenting a perfect El Dorado, like the piles of gold in the broker's windows, only less real; they sell also *charbon de terre* and *charbon de bois*. They also sell—it will make you laugh to hear—small pine cones, four for a sous, for fuel. In the winter they burn English coal, which is dear too, mixed with wood. The forests in France are mostly consumed, and great complaints are made of the high duty on English coal. —— astonished his barber by telling him he had burnt up while camping out, many thousand francs' worth of wood in one night! Their manner of sawing wood expresses the value they put upon it; instead of subjecting it to the rude contact of a saw-horse, they hold it carefully in their hands, and rub it up and down the saw; the sawdust is of course carefully preserved; they would as soon waste gold dust. A good deal might be said on the influence which the scarcity of fuel has had on the French character, driving them to the café and the spectacle, from the fireside.—*Paris Corres. Salem Gazette.*

Mice.

The harvest mouse is the smallest of all known British quadrupeds, only one-sixth of the size of the common house mouse, for two harvest mice placed in a scale will not do more than weigh down a single halfpenny. Its little nest is beautifully constructed of leaves, and sometimes the softer portion of reeds. About the middle there is a small hole, just large enough to admit the point of the little finger. This is the entrance to the nest, which the mouse closes up when it goes in quest of food; and yet this fairy structure, which a man might enclose in the palm of his hand, and which might be tumbled across the table like a ball without disarranging it, often contains as many as eight or nine little mice; for even when full grown the whole length of the head and body scarcely exceeds two inches. During the winter months it retires to its burrow under the ground, unless it should be fortunate enough to get into a corn-stack. It is one of the prettiest of our English animals, and may be kept in a cage like white mice, where it will amuse itself for several minutes at a time by turning round a wire wheel. Its chief food is corn, although it will occasionally feed upon insects.

How the harvest mouse contrives to give nourishment to eight or nine young ones in that round confined little nest, was a puzzle to that clever naturalist Gilbert White; and as he could not resolve so difficult a question, he imagined that she must make holes in different parts of the nest, and so feed one at a time. It is very amusing to watch the habits of this beautiful little creature in a cage; to see how she will twine her tail around the wires, clean herself with her paws, and lap water like a dog: it is the little tomtit of animals. Even the common mouse, which is so great a pest to our houses, is an elegantly shaped little animal, although it is such a plague in the cupboard and in the larder. Wherever man goes, it follows him; let him build ever so princely a mansion, he is sure to have the little mouse for a tenant. He walks in we cannot tell how, and when he has once obtained possession, he is in no hurry to start again. He helps himself to whatever he can get, without asking any one's permission; and he never saw a carpet in his life that he thought was too good for himself and his little companions to play upon.—*Rural England.*

The Potatoe.—Whether indigenous to Peru, or imported from the neighbouring country of Chili, it formed the great staple of the more elevated plains under the Incas, and its culture was continued to a height in the equatorial regions which reached many thousand feet above the limits of perpetual snow in the temperate latitudes of Europe. Wild specimens of this vegetable might be seen still higher, springing up spontaneously amidst the stunted shrubs that clothed the lofty sides of the Cordilleras, till these gradually subsided into the mosses and the short yellow grass, *pajonal*, which, like a golden carpet, was unrolled around the base of the mighty cones that rose far into the regions of eternal silence, covered with the snows of centuries.—*Prescott.*

The object of a rotation, is the production of the greatest profit in crops with the least exhaustion of the soil.

Agricultural Exhibition.

Premums offered by the Philadelphia Society for promoting Agriculture, for the Exhibition, to be held at the Lamb Tavern, on the Lancaster turnpike road, one mile west of the Schuylkill, on Thursday and Friday, the 14th and 15th of October, 1847.

Horses.–For the best thorough-bred Stud Horse, $10.
For the next best do. Colman's Agricultural Tour.
For the best Stud Horse adapted to the field and road, $8.
For the next best do. Colman's Tour.
For the best thorough-bred Brood Mare, $8.
For the next best do. Colman's Tour.
For the best mare adapted to the field and road, $8.
For the next best do. Colman's Tour.
For the best Horse Colt between two and four years old, $6.
For the next best do. Colman's Tour.
For the best Filly or Mare Colt, do. $3.
For the next best do. $1.
For the best Horse Colt between one and two years old, $4.
For the next best do. Washington's Letters on Agriculture.
For the best Filly or Mare Colt, do. $4.
For the next best do. Washington's Letters.

Neat Cattle Over Two Years Old.—For the best Durham Bull over three years old, $10.
For the next best do. Colman's Tour.
For the best do. between two and three years old, $8.
For the next best do. Colman's Tour.
For the best Bull of Devon blood, $8.
For the next best do. Colman's Tour.
For the best Ayrshire Bull, $8.
For the next best do. Colman's Tour.
For the best Alderney Bull, $8.
For the next best do. Colman's Tour.
For the best Durham Cow over four years old, $8.
For the next best do. Colman's Tour.
For the best do. between two and four years old, $8.
For the next best do. Colman's Tour.
For the best Durham Heifer between two and three years old, $6.
For the next best do. Colman's Tour.
For the best Heifer of mixed breed between two and three years old, $4.
For the next best do. Washington's Letters.
For the best Heifer of Native breed, $4.
For the next best do. Washington's Letters.
For the best Cow of Devon blood, $6.
For the next best do. Washington's Letters.
For the best Ayrshire Cow, $6.
For the next best do. Washington's Letters.
For the best Alderney Cow, $6.
For the next best do. Washington's Letters.
For the best Cow of mixed blood, $4.
For the next best do. Washington's Letters.
For the best cow of Native breed, $4.
For the next best do. Washington's Letters.
For the best yoke of Working Oxen, reference being had to their performance, $10.
For the second best do. $6.
For the third best do. Colman's Tour.
For the best fat Ox or Steer, $6.
For the next best do. Colman's Tour.
For the best fat Heifer over three years old, $4.
For the next best do. $2.

Neat Cattle Under Two Years Old.—For the best Durham Bull between one and two years old, $6.
For the next best do. Colman's Tour.
For the best Devon Bull, do. $4.
For the next best do. Washington's Letters.
For the best Ayrshire Bull, do. $4.
For the next best do. $2.
For the best Alderney Bull, do. $4.
For the next best do. $2.
For the best Bull Calf between four months and one year old, of each of the above breeds, $2.
For the best Durham heifer between one and two years old, $6.
For the next best do. Washington's Letters.
For the best Devon do. $4.
For the next best do. $2.
For the best Ayrshire do. $4.
For the next best do. $2.
For the best Alderney do. $4.
For the next best do. $2.
For the best Heifer of mixed breed, do. $4.
For the next best do. $2.
For the best Heifer of Native breed, do. $4.
For the next best do. $2.
For the best Heifer Calf of each of the above breeds, between four months and one year old, $2.

Sheep.—For the best Bakewell or Leicester Buck over one year old, $4.
For the next best do. $2.
For the best do. under one year old, $2.
For the next best do. $1.
For the four best Ewes over one year old, $4.
For the four next best do. $2.
For the four best Ewe Lambs between four and twelve months old, $2.
For the next best do. $1.
For the best Southdown Buck over one year old, $4.
For the next best do. $2.
For the best do. under one year old, $2.
For the next best do. $1.
For the best Merino Buck over one year old, $4.
For the next best do. $2.
For the four best do. Ewes over one year old, $4.
For the next best do. $2.
For the four best Ewe Lambs between four and twelve months old, $2.
For the next best do. $1.
For the four best do. Ewes, $4.
For the next best do. $2.
For the best Cotswold Buck over one year old, $4.
For the next best do. $2.
For the best do. under one year old, $2.
For the next best do. $1.
For the two best do. Ewes over one year old, $4.
For the next best do. $2.
For the two best do. Ewe Lambs, between four and twelve months old, $2.
For the next best do. $1.
For the best improved Buck of mixed breed, over one year old, $2.
For the next best do. $1.
For the four best Ewes, do. $2.
For the next best do. $1.

Hogs.—For the best Boar of any breed, over one year old, $4
For the next best do. $2.
For the best Boar do. over six months and under one year, $4.
For the next best do. $2.
For the best Sow do. over one year old, $2.
For the next best do. $2.
For the best Sow do. over six months and under one year, $4.
For the next best do. $2.
For the best Boar Pig between two and six months old, $3.
For the next best do. $2.
For the best Sow Pig do. $3.
For the next best do. $2.
For the five best Pigs, under two months old, $4.
For the five next best do. $2.

Poultry.—For the best pair of Jersey Blue Fowls, $2.
For the next best do. $1.
For the best pair of any other improved breed, $2.
For the next best do. $1.
For the best pair of Capons, $2.
For the next best do. $1.
For the best pair of Turkeys, $2.
For the next best do. $1.
For the best pair of Geese, $2.
For the next best do. $1.

For the best pair of Ducks, $2.
For the next best do. $1.

Agricultural Implements.—For the best Plough, the merits thereof to be decided by trial, $10.
For the next best do. Colman's Tour.
For the best Drill Machine, $4.
For the next best do. $2.
For the best Straw or Hay Cutter, $4.
For the next best do. $2
For the best Horse Power Straw or Stalk Cutter, $6.
For the next best do. Colman's Tour.
For the best Corn Sheller, $4.
For the next best do. $2.
For the best Wheat Fan, $4.
For the next best do. $2.
For the best display of Agricultural Implements, $10.
For the next best do. Colman's Tour.
Suitable premiums will be given for any improved Implement of merit, not included in the above.

The Ploughs intended for trial must be at the Exhibition during the whole time. Premiums will be awarded to the best ploughmen:
For the best, $5.
For the next best, Colman's Tour.

Agricultural Produce.—For the best five pounds of fresh butter, a silver Butter Knife, value $5.
For the second best do. Colman's Tour.
For the third best do. $2.
For the best Firkin or Jar of Salted or Preserved Butter, not less than 20 lbs., a Silver Butter Knife, value $5.
For the next best do. Colman's Tour.
For the best sample bushel of Red Wheat, $3.
For the next best do. $1.
For the best do. White Wheat, $3.
For the next best do. $1.
For the best sample bushel of Rye, $2.
For the next best do. $1.
For the best sample bushel of Flint Corn, $2.
For the next best do. $1.
For the best do. Gourd Seed Corn, $2.
For the next best do $1.
For the best do. Mixed Corn, $2.
For the next best do. $1.
For the best sample bushel of Oats, $2.
For the next best do. $1.
For the best sample bushel of Potatoes, $2.
For the next best do. $1.
For the best bushel of Sweet Potatoes raised in this State, $2.
For the next best do. $1.
For the best display of Agricultural Produce generally, $3.
For the next best do. Colman's Tour.
A suitable premium will be given for any new variety of Grain of improved quality.

A statement of the mode and manner of making and preserving the different kinds of Butter, will be required of competitors. The preserved or salted butter must have been put up at least two months previous to the Exhibition.

M. S. Powell, Seedsman, 23 Market street, above Front, Philadelphia, will take charge of any samples of Seeds intended for the Exhibition.

A Ploughing Match, for the trial of Ploughs and Ploughing, will take place on the second day of the Exhibition, the 15th of October, at nine o'clock.

☞ Stock entered for the foregoing Premiums cannot compete for others.

No animal that has previously taken the Society's first premium, will be allowed to compete in the same class.

Ample evidence will be required as regards the pedigree, age and character, of all stock entered for premium.

All premiums uncalled for within six months from the time of holding the Exhibition, will be considered as donations to the Society.

The Judges are authorised to withhold premiums where the object is not entitled to distinction; and where but one of a class is exhibited, they will award such premium as they think it merits. Those persons who intend bringing animals for competition, must inform the Committee of Arrangement before 9 o'clock on the first day of the Exhibition.

Premiums to be confined to animals owned exclusively in this State, except where assurance is given that they will be allowed to remain here at least nine months.

All Stock, &c, contributed, must remain on the ground during the two days of Exhibition.

ROBERT T. POTTS,
ISAAC W. ROBERTS,
DENNIS KELLY,
AARON CLEMENT,
DAVID GEORGE,
DAVID LANDRETH,
GEORGE BLIGHT,
MANUEL EYRE,
A. L. ELWYN,
A. S. ROBERTS,
Committee of Arrangement.

July 22, 1847.

The Horse.—I will state a few things that I have learned, and they may be of benefit to your readers. A horse that is driven on hard roads is liable to get stiff in the joints. In 1833 I had an animal, which after driving three or four days, got quite lame. An old Baltimore teamster told me to wash the mare's legs in a tolerably salt brine, which was done accordingly, three times a day for the balance of the journey. The stiffness disappeared in a few days, and I drove the mare 1,400 miles afterward, and there was no more trouble on that account. What pleased me most was, the mare had a very poor foot to hold a shoe, when I started. It was very brittle and hard. It would break out when a nail was put in. But it grew together at every shoeing. A blacksmith in New England remarked to me that her foot had a singular appearance; where he pared it was soft and tough. I account for it in this way; salt will attract moisture from the atmosphere, which keeps the foot moist all the time; and salt has nearly the same effect that grease has on a foot or a piece of timber. The drippings from salt on a floor if continued long, cannot be got off; the wood becomes moist and tough, and so with a horse's foot. After washing the legs, turn up the horse's foot, clean the bottom, pour the hollow full of brine and hold for a few minutes to soak the bottom. The practice of rasping the foot all over to toughen it is abominable.—*Farmer & Gardener.*

To Prevent Lamps from Smoking.—Soak the wick in strong vinegar, and dry it well before you use it; it will then burn both sweet and pleasant, and give much satisfaction for the trifling trouble in preparing it.

Don't give your boys the worst tools and then scold because they cannot do as much as *men.*

Fresh Peaches in Winter.

EARLY in April we had the pleasure of receiving from Samuel Wyman, Esq., of Baltimore, two tin cans, hermetically sealed, holding about two quarts each, bearing the following printed label:

"*Fresh Peaches*, put up in the natural state, without sugar, and suitable for a dessert, to be eaten with sugar and cream, etc. *Warranted to keep twelve months in any climate.* Put up by Edward Wright, 16 Hill street, Baltimore."

Mr. Wyman informs us that these peaches, which were of large size, were grown by himself; that he has made repeated trials of this, Mr. Wright's mode of preserving, with the details of which he is unacquainted; and adds, "I feel constrained to say that this process of preserving, whatever it may be, maintains the natural taste and flavor of the fresh fruit, in a degree far superior to any other with which I am acquainted."

On opening the cans, we found the peaches *halved*, and apparently lying in their own juice. When cut up with sugar, they are as nearly as possible like the fresh fruit in appearance and flavor, and to our own palate infinitely more delicious than any "preserved" fruit, as the term is usually applied—that is, to fruit "embalmed in sugar," and which retains none of the freshness of the natural state.

The process we should imagine to be a simple one, and is no doubt much the same as that employed by the French in preserving truffles, etc., though we think the specimens much more completely preserved than the so-called fresh fruit which we have seen sent from France.

We understand quite a business is carried on in this preserved fruit in Baltimore. The secret would, if as easily carried into practice as we should suppose, be worth a good deal to the country at large.—*Downing's Horticulturist.*

Strawberries and Milk.

A LETTER from H. C. Seymour, Esq., superintendent of the New York and Erie Railroad, to Mr. Marsh, the Secretary, says:

"The milk train of Tuesday night—22nd instant—took to New York 80,000 baskets of strawberries. These baskets are intended to contain one pint each; but say that three baskets contain one quart, which is quite within bounds. Then we had 26,667 quarts, or *eight hundred and thirty-three bushels.* These strawberries will no doubt weigh 65 pounds to the bushel, but say 60, then we had *twenty-five tons of strawberries alone.* The boxes and baskets weigh as much more, so that the freight was at least *fifty tons.* By the same train we had 28,000 quarts of milk, which weigh—a pint a pound—*twenty-eight tons*, and including cans, 35 tons; making a freight of *eighty-five tons* of strawberries and milk. The milk by both our trains equals fifty tons—50,000 qts.—daily; and including cans, 63 tons. The Rockland county people receive nearly $3,000 a day for their strawberries."

The New York Journal of Commerce remarks—"The value of such an avenue of communication to the city, can scarcely be estimated. It gives us the good things of the country in cheapness and abundance."

On Thursday, the 24th, 52,492 baskets of strawberries were received in New York by the Erie Railroad.

Twenty-eight thousand quarts of milk per day is *ten million, two hundred* and *twenty* thousand quarts a year, which, at *six cents a quart*—the *average* price previous to the opening of the New York and Erie Railroad—amounts to $613,200 per year, for an inferior article; but since the opening of this road the average price of *good* milk has been four cents—making an annual saving of $204,400 to the people of the city on *milk alone!!* to say nothing of the "*strawberries.*"

If such advantages result to the city from *one* item of provisions, when the road is only *one-fifth* completed, what may not be anticipated when the communication is opened to the lake and to the fruitful west? Who can estimate them? The economy of living and of transportation alone will be equal, in *five* years, to the *entire cost* of the road, even if it exceeds *ten millions* of dollars.—*Rail Road Journal.*

Pattern Farmer in Belmont County.

A correspondent of the Ohio Cultivator gives the following description of a new mode of fencing which he had lately met with in his rides, and we think it is so *rich* that our readers should not be deprived of it.—ED.

THE owner is a young man whose father died a year or two since, and left him a good farm; he has built a new house in a field close to the State road, and the fence encloses the *yard and garden.* The *modus operandi* is this: at the two front corners of his house, which is one story high, the logs project out about two feet; on these he lays a pole or two, pointing towards the road, and at the outer end he drives a dogwood fork in the ground, some three feet high, and on it lays the other end of the pole, and so on till

enclosed. It is the cheapest and *most convenient* fence I ever saw! The house being in the field, the cow can come to the door, the woman can just stoop a little, pass under the pole and she's at the cow's side; the hogs can come under the pole and eat at the door, and the cow cannot disturb them, and the owner can feed them without going out of the house. He keeps no out-houses, not even a pig-pen, or hen-house, consequently no manure accumulates in his way; he gathers his corn as he *uses* it from the field, thereby depriving the rats of a living from him; his other grain is no trouble to him, for the neighbours' cattle generally gather it on the shares, they take the three-thirds—he is now so completely fixed, he can rest nineteen-twentieths of his time from toil, and which I am told he actually does—happy man! The cause of all this—last winter he became a subscriber for the Ohio Cultivator; but—he never reads it.

Root Pruning and the Management of the Pear Tree.

The very finest pears I have ever seen or tasted have been produced on pear trees grafted on the quince. I use no stocks but the pear and the quince; the former for orchard trees, or for those who prefer the pear stock; the latter solely for garden trees, principally to form prolific pyramidal trees, for which they are unrivalled both in beauty and fertility. I can illustrate the good effects of root-pruning very forcibly in my specimen orchard.

About thirty years ago, my father planted some rows of pear trees in a portion of the nursery, then a recent purchase; these were all common sorts of pears, standards, grafted as usual on the pear stock. They grew most luxuriantly for some eight or ten years, when their leaves began to change from their usually vivid green to a light yellow; in a year or two this yellow tint increased till their foliage was really of a bright straw colour; the trees soon after all died, so that, at the end of fifteen years, not a tree was left on this portion of the nursery, the subsoil of which, I must add, is hard white clay, full of chalk stones; this peculiar soil occupies a very small space, not more than a quarter of an acre, as the neighbouring soil is a tender, sandy loam.

When I came to years of thinking, the untimely fate of these pear trees was often present to my mind, for I remembered so vividly with what pleasure I had filled my pockets from them. I at that time also found that, to be able to know anything about pears, I must have a specimen tree of every kind that I cultivated. No other but this "pestilent spot" of earth happened to be just the place most eligible as a site for my specimen ground. What could I do! I did not then think of root-pruning, but I thought that I should find some way or other to avert the untimely fate of my trees; I therefore planted them in the usual way, digging the holes about two feet in depth, and mixing some manure and compost with the earth taken from the holes, but leaving the hard clayey subsoil below, to the depth of two feet, untouched. I watched my trees narrowly after four or five years, as I then expected to see traces of the effects of the clay soil upon them. I think some eight years must have passed and gone before their foliage turned yellow. My first thought said, remove them to a different site and soil; second thought, take them up and give them some fresh compost, they will last a few years, and you can then find a good place for them; third thought, if you can renovate them for a few years by taking them up and replanting, why not do this periodically, so as to keep your trees healthy; the site is good,—make the soil equally so; fourth thought, what occasion is there to remove the tree? cut its principal roots, leaving those that are fibrous; and so I became a pruner of roots.

In my specimen ground are several standard pear trees from eight to ten years old; these terminate long rows of standards, left to grow as nature dictates, both root and branch, except occasional thinning of their heads. These, it must be recollected, are among my root-pruned specimen trees, a great number of which are from twelve to fifteen years old. They have had their roots pruned three times within these eight years, the last time in December, 1844. They are now full of health, and foliage, and fruit,—in fact, all that I can wish them to be. The standard trees, with roots unpruned, have their leaves yellow, and are, I fear, hastening to death.—*Hovey's Magazine of Horticulture.*

Prices of Breadstuffs in Europe for thirty years past.

Hon. Charles Hudson, of this State, in a speech at the last session of Congress, condensed the following review of the prices of bread-stuffs in Europe for the last thirty years:

But our purpose is, at present, more particularly to show from Tooke's history of prices, the state of the crops, and the grain

market of England for the last thirty years, the prices stated being in shillings sterling, per quarter of eight bushels each, or 480 lbs.

In 1816: There was a lamentably deficient harvest, and wheat rose from 55.6 per quarter in February, to 74.11 in June, 82.1 in August, 90.10 in October, 103.7 in December.

In 1817: There was almost a famine in France, and large purchases were made in England, late in the spring, for the French government. The price was 104 in January, and rose to 112.8 in June; but from the fine weather both in France and England after that time, it fell in July to 102.6, in August to 86.5, and in September to 78.8.

In 1818: The price was 84.10 in January, 89.8 in April and 86.6 in July, 81.3 in August, and 80.8 in December.

In 1819: The average price was, in January, 79.3, in June, 68.10, in December, 66.3.

In 1820: It had risen in August to 72.5; but in December it fell to 54.6.

In 1822: Early in the season the price of wheat was about 50; but in December the average price was 38.11.

In January, 1823, the average price was 40.4; and rose in June to 62.5; and fell again in October to 46.6; in December it rose again to 50.8.

In March, 1824, it was 65.6, but declined to 65.4 in December.

In May, 1825, it was 68.9; in September, 66.7, in December, 63.

In January, 1826, it was 60.3; and fell in March to 55.7; and closed in December at 55.8.

In 1827, it was in January, 53.5; in July, 59.6; in August, 57.11; in September, 55; in December, 50.2.

In 1828, it was in May, 55.3; in June, 54.9; in July, 54; in November, 73; in December, 71.8.

In 1829, much of the crop being of bad quality, sold for 50; best quality brought an average of 72.6.

In 1830, in January, it was 54.4; in April, 63.11; in August, 70.5; in October, 60.10; in December, 64.11.

In 1831, in February wheat sold for 71.10; in August it was 61.11; in December, 58.3.

In 1832, it was 61.5 in July; in December, 52.6.

In 1833, it was 51.1 in January; and 51.6 in June; in August, 53.5; in December, 47.10.

In 1834 it continued to fall from 45 in the early months throughout the year, till, in December, it sold for 39.6.

In 1835, wheat sold in April for 37.10; in July, 41; but it fell again in December to 35.4; being but little more than one-fourth of what it brought at the close of the last century.

In 1836, in January, the price was 36; in June, 48.11; in October, 46.4; in December, 57.9—an advance of seventy per cent. upon the price of December, 1835.

In 1837, it fell again, till in May it was 52.10; in June, 54.9; in August, 57.5; in September, 54.11; in December, 51.3.

In 1838, in January, 53.5; in February, 55.5; in March, 56.6; in August, 73.8; in September it fell to 64.9; but it rose again till, towards the last of December, it was 78.4.

In 1839, in January, it reached 81.6; in in April it fell to 70.1; in July and August it was 71.8; in December, 66.11.

We have Tooke's prices no later than this year, and therefore have only the price, on the 1st of November, to 1843, as given in Parliament by Lord John Russell, as follows: In 1840, November 1st, 63; in 1841, November 1st, 63.2; in 1842, November 1st, 50.

In 1843, the price in February was 51; in June, 49; in August, 62; in December, 51.8.

In June, 1844, it was 55.8; in August, 40.1.

In 1845, in June, 47.10; in August, 57; in December, 58.6.

In January, 1846, it was 56.3; in March, 54.10; in August, 47.5; in October, 58.10; in November, 62.3; in December, 60.3.

In 1847, up to the present time, January 2nd, 64.4; January 20th, 73.3; February 6th, 73.10; February 13th, 71.10; February 27th, 74.6; March 20th, 75.10; March 27th, 77; April 10th, 74.—*Massachusetts Ploughman.*

Good and Bad Farming.

Look at the contrast between a good farmer and a bad one—between a neat thrifty cultivator of the soil, and a slack and slovenly one. The buildings of the one, whether large or small, are all in good repair. The premises about them are clean, and unencumbered by piles of rubbish and brush. His wood is cut and placed under cover in proper season. His tillage and mowing fields are clean of weeds, bushes, and stones. His walls and fences have no unsightly gaps. His fruit trees are well trimmed and well cultivated, and are kept free from cattle and caterpillars. His barn-yard or barn-cellar evinces the high value he places on manure, by the care he bestows in making and saving it, and his lands from year to year, show that they experience the full benefit of a right application of it. He is at work, boys

and all, before the sun. While he finds time for the discharge of his political and other public duties, he spends little or none of it by the way-side, in discussing the affairs of the nation or the gossip of the village. He takes a newspaper to tell him how the government and the world jog on, and an agricultural paper to give him an idea of the improvements to be made in his own occupation.

The buildings and premises of the other exhibit many a symptom of neglect and premature decay. A barn door, perhaps, for loss of hinges, is propped up by rails or stakes. The frame work of a shed is all that remains of what was once a shelter for his stock. Brushwood and trunks of trees lie in fantastic confusion about his doors, whilst the skeletons of departed carts, and wheels, and sleds, and ploughs line the road side for a considerable distance, as you approach his dwelling. Walls and fences are so enveloped in bushes, as to be almost imperceptible. His barn-yard is washed and drained by a convenient declivity, leading either to the road side or a neighbouring stream. His tillage land is impoverished by repeated croppings and a stinted allowance of food. Thistles, johnswort and mullein, or some similar specimens of vegetation, hold title to his mowing fields by right of uninterrupted occupation. He rises not before the sun tells him it is day. He is generally behindhand in his work. His crops suffer for want of due care and harvesting. He carries to market an inferior article, gets an inferior price, and then complains to everybody he meets of hard times, and the hard life a farmer has to lead. Of course, he is quite ready to lay the blame upon any shoulders but his own, and the government, either state or national, has very often to bear no small share of it.

By a process recently invented, the rays of the sun, striking upon a person's countenance, portray, in an instant of time, an exact miniature of his features. The same art has also been applied to give a faithful birdseye view of groups of objects and men. Every attitude, every lineament is struck off, in a twinkling, with all its beauties or blemishes, just as they are in the originals. Suppose the Daguerreotype were employed to seize the striking points of each farm in this county, and that the pictures, thus produced, were suspended on these walls for inspection. Would there be no contrasts exhibited in the panorama? No features which would willingly be erased? No whole pictures which would gladly be turned face to the wall?

No farmer who has any pretensions to the name, when he looks upon the two extremes to which his noble art may be elevated or degraded, would hesitate which to choose for the object of his endeavours. If he elect the good farmer as the model of his imitation, he will need something more than mere wishes and resolutions,—than sudden starts and occasional exertions, to realize in his character the enviable distinction of a skilful cultivator of the soil. It is not the work of a day or of a year, but of many years, truly to earn and deserve this title. It is laborious, patient, persevering and intelligent working, that is to do it. He must take an honest pride in his profession; never to be ashamed of his hard hands, homespun frock, or toilsome occupation. His motto should be, "Whatever is honest is honourable," and farm labour is pre-eminently so. His heart and his head, as well as his muscles and sinews, must be in his work. He must endeavour not only to make his farm profitable, to gain from it the most he can at the least expense, but to keep it in a constantly progressive state of improvement. He will have his attention awake at all times, to the means of effecting this. He will not lay out for cultivation more ground than he can manure well, cultivate well, and leave in better tilth than he found it. He will remember another axiom of the good farmer, "that whatever is worth doing at all, is worth doing well." He will ever bear in mind, too, that his own farming, however excellent and successful, may still be made better and more profitable.—*Address of A. W. Dodge, Esq., before Barnstable Agricultural Society.*

The Woodpecker.

In more than fifty orchards which I have myself carefully examined, those trees which were marked by the woodpecker—for some trees they never touch, perhaps because not penetrated by insects—were uniformly the most thriving, and seemingly the most productive; many of these were upwards of sixty years old, their trunks completely covered with holes, while the branches were broad, luxuriant, and loaded with fruit. Of decayed trees, more than three-fourths were untouched by the woodpecker. Several intelligent farmers with whom I have conversed, candidly acknowledge the truth of these observations, and with justice look upon these birds as beneficial; but the most common opinion is, that they bore the trees to suck the sap, and so destroy its vegetation; though pine and other resinous trees, on the juices of which it is not pretended they feed, are often found equally perforated.

Were the sap of the tree their object, the saccharine juice of the birch, the sugar maple, and several others, would be much more inviting, because more sweet and nourishing, than that of either the pear or apple tree; but I have not observed one mark on the former, for ten thousand that may be seen on the latter. Besides, the early part of spring is the season when the sap flows most abundantly; whereas, it is only during the months of September, October, and November, that woodpeckers are seen so indefatigably engaged in orchards, probing every crack and crevice, boring through the bark, and, what is worth remarking, chiefly on the south and south-west sides of the tree, for the eggs and larvæ deposited there by the countless swarms of summer insects. These, if suffered to remain, would prey upon the very vitals, if I may so express it, of the tree, and in the succeeding summer give birth to myriads more of their race, equally destructive.

Here, then, is a whole species, I may say, genus of birds, which Providence seems to have formed for the protection of our fruit and forest trees from the ravages of vermin which every day destroy millions of these noxious insects that would otherwise blast the hopes of the husbandman, and which even promote the fertility of the trees; and, in return, are proscribed by those who ought to have been their protectors, and incitements and rewards held out for their destruction. Let us examine better into the operations of nature, very many of our mistaken opinions and groundless prejudices will be abandoned for more just, enlarged, and humane modes of thinking.—*Wilson's Ornithology.*

Bay-side Farming in Talbot Co., Md.

The following Report from a district in which are much enterprise and improvement in farming operations, we publish with pleasure at the request of a friend.—Ed.

The Committee on "Bay-side Farming," appointed by the Trustees of the Agricultural Society for the Eastern Shore of Maryland, beg leave to report, in part:

That they have had the interesting subject referred to them, under consideration for several months past, and have found some difficulty in their investigations, in consequence of the want of facts on which they can rely. They have, at last, been obliged to depend upon tradition and their own limited observations.

That great improvements have been made in the Agriculture of this beautiful region is manifest to all who have any acquaintance with it, and your Committee will endeavour to show how they have been brought about.

The waters of the Chesapeake bay, Miles river and Choptank, nearly embracing this peninsula, afford large annual supplies of sea-ware, or sea-ores—and their banks contained large quantities of decomposed oyster shells, now nearly exhausted. It is believed that the first man in the district who used sea-ores to any considerable extent, as manure, was the late Lloyd Tilghman, Esq., as far back as sixty years; but he does not appear to have had many immediate followers. About thirty years ago much attention was drawn to crops of corn and wheat grown by Mr. William Hambleton, on land proverbially poor; principally by the use of these materials, aided by a well-littered farm-yard. This example had a powerful effect. It showed, clearly, that increased products were within the reach of all; and the use of these valuable articles, so long neglected, extended rapidly. Wherever they were within reach they were used, and invariably with success. Many who had no bank-shells resorted to lime from oyster-shells collected from creeks and rivers washing their shores, and this practice still continues with good effect.

The confining of cattle during the whole of the winter season on large accumulations of rich earth, pine rushes, straw, &c., in yards with permanent or temporary shelters, about the same time became more general, and appeared to suggest the penning of them on similar heaps during the summer—now almost universal.

Your Committee consider this a great improvement on the "ambulatory" cow-pen of the last generation.

The pen is generally from thirty to forty yards square—half-worm fence staked and capped, with bars or a rough gate; a good foundation of marsh or rich soil is covered over with pine rushes ready to receive the cattle in May. In this pen they continue to be confined every night until late in October, the pen receiving fresh stuff about once a fortnight. In this way the bank, under favourable circumstances, becomes more than two feet deep, and is hauled out before winter, when the fields are firm, ready for spreading in the spring. Such a heap, with the winter crop of manure, is frequently sufficient to dress over the field intended for corn. The pen is generally made in that field, and supplies of earth are obtained from the woods and from turning rows, or low places ploughed up as drains, wherever required. In lands so level as those in the

Bay-side, the removal of the rich soil on a head-land is important; it acts as a broad though shallow ditch, and discharges much water after heavy falls of rain, while the leads serve to conduct it off without obstructing cultivation. They are generally about three feet wide and the usual depth of ploughing.

A little more than twenty years ago the rich deposits of earth found at the heads of creeks began to be hauled out as manure. It appears wonderful that these natural compost beds should so long have been overlooked. They have been used to great extent and with unfailing advantage.

No marl has been found in the district, except in the neighbourhood of the Royal Oak, on the lands of Major Dawson, Captain Moister and Mr. Townsend, who use it with much success.

Our waters afford an annual supply of fish-manure in the Skate. They arrive, unfortunately, at a busy season. Some are taken by farmers who have seines, while others buy of those who make a business of catching them for sale.

Ashes and guano in a few cases have been imported from Baltimore and applied with satisfactory results. Ashes can be laid down on our shores at a cost of twelve and a half or thirteen and a half cents. An enterprising practical farmer, Mr. Edward Covey, last year purchased and applied no less than 5,500 bushels, and this after ascertaining their value from several years' experience. Your Committee consider this a fact of great value. It is difficult to introduce manures which require a direct outlay of money; yet it is obviously proper, by all reasonable means, to enrich our lands that our labour be not wasted.

The manner of using sea-ores is various. Some put them in large heaps to be distributed at leisure; others dress their cow-pens with them, or drop them in the field to be spread at some distant day. The best way is to double-list* them in at once on corn land to be crossed and planted next spring; thus evaporation is avoided and labour saved.

Your Committee think it unnecessary to describe the mode of cultivation farther than to remark that it is much more thorough than formerly, and altogether in ridges. Few omit to sow clover-seed; but little clover is cut for hay. It is either grazed off or turned in. Plaster of Paris is not used, no benefit having been found from repeated experiments.

The four-field system, without fallow, is thought to be the best for the improvement of land, a field of clover lay to be added when in sufficient heart to bear the change—making one in corn, two in wheat and one in pasture. This is believed to be the most profitable course of husbandry, and is followed by the best and most successful farmers in the district. The old modes of securing the corn crop and fodder still continue. The seeding of wheat commences the first week in October and ends early the next month. Some of those who have no fallow are enabled to house their corn before they begin to seed wheat.

In conclusion, your Committee, in the absence of records of crops, are under the necessity of resorting to conjecture; and they hope that they will not be deemed extravagant when they express the opinion that the products of the Bay-side district have been, within the last twenty or thirty years, quadrupled.

All which is respectfully submitted.

S. Hambleton,
W. H. Harrison.

Talbot Co., Md., Feb. 15th, 1847.

* In this level country the cultivation is uniformly in narrow ridges, and the backing of four furrowslices together in the furrow between two of the ridges is called "Double-Listing."

Horticultural Premiums.

The Pennsylvania Horticultural Society offers at its Autumnal Exhibition, to be held on the 15th, 16th and 17th of next month, the following premiums. The usual monthly displays this summer have been no less attractive than last, continuing to offer to the admirer of rare plants a delightful gratification, very much at the expense and trouble of others, and to the lover of fine fruit and vegetables, the temptation of *trying his hand to raise them.*—Ed.

Grapes (*Native*).—For the best, named collection to be exhibited, $5.

For the second best, do. do. $3.

For the best, six bunches, Isabella, to be exhibited, $3.

For the second best do. do. do. $2.

For the third best do. do. do. $1.

For the best do. Catawba, do. $3.

For the second best do. do. do. $2.

For the third best do. do. do. $1.

For the best do. Elsinborough, do. $3.

For the second best do. do. do. $2.

For the third best do. do. do. $1.

For the best do. of another variety, do. $3.

For the second best do. do. do. $2.

For the third best do. do. do. $1.

Grapes, (*Foreign*) *raised under glass.*

For the best, named collection to be exhibited, $5.

For the second best do. do. do. $3.

For the best Hamburgh, four bunches to be exhibited, $3.

For the second best do. do. do. $2.

For the best Hansteretto, four bunches to be exhibited, $3.
For the second best do. do. do. $2.
For the best, Frankenthal, do. do. $3.
For the second best do. do. do. $2.
For the best Chasselas, do. do. $3.
For the second best do. do. do. $2.
For the best White Muscat of Alexandria, four bunches, $3.
For the second best do. do. do. $2.
For the best Frontignac, four bunches to be exhibited, $3.
For the second best do. do. do. $2.
For the best St. Peter's, do. do. $3.
For the second best, do. do. do. $2.
For the best of another variety, do. do. $3.
For the second best do. do. do. $2.

GRAPES, (*Foreign,*) *raised in the open air.*

For the best named collection to be exhibited, $5.
For the second best do. do. $4.
For the third best do. do. $3.
For the best, four bunches, of a black variety to be exhibited, $4.
For the second best do. do. do. $3.
For the third best do. do. do. $2.
For the best do. of a white variety, do. $4.
For the second best do. do. do. $3.
For the third best do. do. do. $2.

PEACHES.—For the best, one bushel to be exhibited, $7.
For the second best do. do. $5.
For the third best do. do. $3.
For the best, one peck do. $3.
For the second best do. do. $2.
For the third best do. do. $1.
For the best, two dozen do. $2.
For the second best do. do. $1.

NECTARINES.—For the best, one dozen to be exhibited, $2.
For the second best do. do. $1.

PLUMS.—For the best, two dozen to be exhibited, $3.
For the second best do. do. $2.
For the third best do. do. $1.

MELONS.—For the best, three in number to be exhibited, $2.
For the second best do. do. $1.

WATER MELONS.—For the best, Spanish variety, three in number, $3.
For the second best do. do. $2.
For the third best do. do. $1.
For the best of another variety, do. $3.
For the second best do. do. $2.
For the third best do. do. $1.

PEARS.—For the best and most numerous, named varieties, $8.
For the second best do. do. $6.
For the third best do. do. $4.
For the fourth best do. do $2.
For the best Seckel, half a peck to be exhibited, $3.
For the second best do. do. $2.
For the third best do. do. $1.
For the best Doyenne blanc or Butter, one peck to be exhibited, $3.
For the second best do. do. do. $2.
For the third best do. do. do. $1.
For the best of another variety, half a dozen to be exhibited, $2.
For the second best do. do. do. $1.
For the best, half a peck, a different variety, do. $2.
For the second best do. do. do. $1.

APPLES.—For the best and most numerous, named varieties, $8.
For the second best do. do. $6.
For the third best do. do. $4.
For the fourth best do. do. $2.
For the best, one bushel to be exhibited, $3.
For the second best do. $2.
For the third best do. $1.
For the best, one peck do. $2.
For the second best, do. $1.

QUINCES.—For the best, half a peck do. $3.
For the second best do. $2.
For the third best do. $1.

POTATOES.—For the best, one bushel do., $5.
For the second best do. $4.
For the third best do. $3.
For the fourth best do. $2.
For the fifth best do. $1.
For the best American Seedling, of superior quality, $5.
For the best Sweet, one bushel to be exhibited, $3.
For the second best do. $2.
For the third best do. $1.

BEETS.—For the best, one dozen do. $2.
For the second best do. $1.

CARROTS.—For the best, two dozen do. $2.
For the second best do. $1.

SALSIFY.—For the best do. $2.
For the second best do. $1.

ONIONS.—For the best, four dozen do. $2.
For the second best do. $1.

CABBAGE.—For the best, six heads do. $3.
For the second best do. $2.
For the third best do. $1.
For the best do. Red Dutch, to be exhibited, $2.
For the second best do. do. do. $1.

LETTUCE.—For the best do. to be exhibited. $2.
For the second best do. do. $1.

ENDIVE.—For the best, blanched, six heads do. $2.
For the second best do. do. do. $1.

CHARD.—For the best, six plants do. $2.
For the second best do. do. $1.

CHARDOON.—For the best do. blanched, do. $2.
For the second best do. do. $1.

Celery.—For the best do. blanched, do. $2.
For the second best do. do. $1.
Celeriac.—For the best do. do. $2.
For the second best do. do. $1.
Egg Plants.—For the best, six fruit do. $3.
For the second best do. do. $2.
For the third best do. do. $1.
Tomatoes.—For the best, one peck do. $3.
For the second best do. do. $2.
For the third best do. do. $1.
Maize, or Indian Corn, *for table use.*—For the best, three dozen, $2.
For the second best do. $1.
Cranberries.—For the best, one peck, cultivated, to be exhibited, $2.
For the second best do. do. do. $1.
Pumpkins.—For the best two largest, $2.
For the second best do. $1.
Peas, Green.—For the best and largest quantity to be exhibited, $2.
For the second best do. do. do. $1.
Vegetables.—For the best display, $8.
For the second best do. $6.
For the third best do. $4.
For the fourth best do. $2.
For the fifth best do. $1.
Honey.—For the best do. $5.
For the second best do. $3.
For the third best do. $2.
Dahlias.—For the best, 20 blooms, named varieties to be exhibited, $3.
For the second best do. do. $2.
For the best American seedling, parti-coloured, $2.
For the best American seedling self-coloured, $2.
For the best ten blooms, by amateurs, named varieties, $3.
For the second best do. do. do. $2.
For the best bloom do. do. $2.
Roses.—For the best display of six named varieties to be exhibited, $3.
For the second best do. do. do. do. $2.
Russellia juncea.—For the best specimen in flower, in a pot, $1.
Manettia glabra.—For the best specimen in flower, in a pot, $1.
Hova carnosa.—For the best do. $1.
Verbena.—For the best do. $1.
Verbenas.—For the best, three varieties in pots, to be exhibited, $3.
For the second best do. $2.
Ferns.—For the best display in pots, do. $2.
Petunias.—For the best two specimens, do. $2.
Achimenes.—For the best display to be exhibited, $3.
Orchideæ.—For the best do. $3.

Designs formed of cut flowers, etc.—For the best and most appropriate, $40.
For the second best do. $30.
For the third best do. $20.
For the fourth best do. $15.
For the fifth best do. $12.
For the sixth best do. $10.
For the seventh best do. $9.
For the eighth best do. $8.
For the ninth best do. $7.
For the tenth best do. $6.
For the eleventh best do. $5.
Bouquets—*To be confined to those suitable for the centre-table.*
For the best and most approved, $7.
For the second best do. $5.
For the third best do. $3.
For the fourth best do. $1.
For the best, of indigenous flowers, &c., $5.
For the second best do. $3.
For the best Basket of Flowers, $5.
For the second best do. $3.
For the third best do. $2.
Wreaths.—For the best pair, for festooning, $7.
For the second best do. $5.
For the third best do. $3.

Hints to Men of Business.—Be punctual and attentive. Let your word be sacred, and your engagements inviolable. Keep your accounts straight. Many a man has lost a fortune by carelessness. The little time and trouble it takes day by day, to keep debit and credit, and file away bills that have been paid, is nothing to be compared to the future benefits. No man is perfect, and the most honest may forget that you have adjusted your account, and present his bill again. If you feel sure you have cancelled the debt, you may not convince your creditor of the fact. But if you have preserved his bill receipted, there can be no mistake or further trouble about it.—*Exchange paper.*

It is a pretty general opinion among Bee raisers, that the swarms should not be kept in a Southern exposure during the winter. The bees are apt to be tempted to leave the hive, and thus become chilled and disabled from returning, before they are aware. In summer they should not be exposed to the sun, but shaded.

The Vine prefers hilly, stony ground, with an eastern or southern aspect, and its roots like to penetrate into the crevices of rocks. Uncultivated it produces less, but lives for ages, and its trunk may acquire a prodigious volume. Cultivation, in making it more fruitful, shortens its life.

Pruning,

As practised in the garden, has for its object the regulation of the branches to secure the due production of blossom and maturity of fruit. If carried to too great an extent, that object is not attained, for every tree requires a certain amount of leaf-surface for the elaboration of its sap; and, therefore, if this be reduced too much, blossom buds are produced less abundantly, for leaves are more necessary for the health of the plant, and by a wise provision the parts less requisite for individual vigor are superseded by the parts more needed. On the other hand, if the branches are left too thick, they overshadow those beneath them, and so exclude the light, as to prevent that elaboration of the sap, without which no blossom buds are formed, but an excessive production of leaves, in the vain effort to attain by an enlarged surface that elaboration which a smaller surface would effect in a more intense light. "The season for pruning must be regulated in some degree by the strength of the tree; for although, as a general rule, the operation should not take place until the fall of the leaf indicates that vegetation has ceased, yet if the tree be weak, it may be often perforated with advantage a little earlier; but still so late in the autumn as to prevent the protrusion of fresh shoots. This reduction of the branches before the tree has finished vegetating, directs a greater supply of sap to those remaining, and stores up in them the supply for increased growth next season. If the production of spurs is the object of pruning a branch, it should be pruned so as to leave a stump; because as the sap supplied to the branch will be concentrated upon those buds remaining at its extremity, these will be productive of shoots, though otherwise they would have remained dormant, it being the general habit of plants first to develop and mature parts that are furthest from the roots. It is thus the filbert is induced to put forth an abundance of young bearing wood, for its fruit is borne on the annual shoots, and similar treatment to a less severe extent is practised upon wall fruit."—*Princ. of Gardening.*

The mystery of pruning consists in being well acquainted with the mode of the bearing of the different sorts of trees, and forming an early judgment of the future events of shoots and branches, and many other circumstances, for which some principal rules may be given; but there are particular instances which cannot be judged of but upon the spot, and depend chiefly upon practice and observation. Peaches, nectarines, apricots, &c., all produce their fruit principally upon the young wood of a year old; that is, the shoots produced this year bear the year following; so that in all these trees, a general supply of the best shoots of each year must be everywhere preserved at regular distances, from the very bottom to the extremity of the tree on every side; but in winter pruning, general shortening, less or more, according to the strength of the different shoots, is necessary, in order to promote their throwing out, more effectually, a supply of young wood the ensuing summer, in proper place for training in for the succeeding year's bearing.

Vines also produce their fruit always upon the young wood shoots of the same year, arising from the eyes of the last year's wood only; and must, therefore, have a general supply of the best regular shoots of each year trained in, which, in winter pruning, must be shortened to a few eyes, in order to force out shoots from their lower parts, only properly situated to lay in for bearing the following year.

Figs bear also only upon the young wood of a year old, and a general supply of it is, therefore, necessary every year; but these shoots must at no time be shortened, unless the ends are dead, because they always bear principally towards the extreme part of the shoots, which, if shortened, would take the bearing or fruitful parts away; besides, they naturally throw out a sufficient supply of shoots every year for future bearing, without the precaution of shortening.

Apple, pear, plum, and cherry trees bear principally on spurs, arising in the wood from two or three, to ten or twenty years old, the same branches and spurs continuing bearing a great number of years; so that, having once procured a proper set of branches in the manner already directed to form a spreading head, no further supply of wood is wanted than some occasional shoots now and then to supply the place of any worn out or dead branch. The abovementioned spurs or fruit buds are short robust roots from about half an inch to one or two inches long, arising naturally, first towards the extreme parts of the branches of two or three years old, and, as the branch increases in length, the number of fruit buds increases accordingly.

In pruning always cut quite close, both in the summer and winter pruning, which, in the summer pruning, if attended to early, while the shoots are quite young and tender, they may readily be rubbed off quite close with the thumb; but when the shoots become older and woody, as they will not readily break, it must be done with a knife, cutting them as close as possible; and all winter pruning must always be performed

with a knife. In pruning in summer, the necessary supply of regular shoots left for training in, should never be shortened during this season, unless to particular shoots, to fill a vacancy; for, by a general shortening in this season, all the shoots so treated would soon push again vigorously from every eye, and render the tree a thicket of useless wood. Therefore, all sorts, whether they require shortening in the winter pruning or not, should, in the summer dressing, be laid in at full length; but towards the end of August, the extreme points may be pinched off with great advantage. The sap is thus made to complete the growth of the shoot, and not to increase its length; and it is too late in the season for fresh shoots to be induced.

Summer pruning is a most necessary operation. Young shoots require thinning to preserve the beauty of the trees and encourage the fruit; and the sooner it is performed the better. It is, therefore, advisable to begin this work in May, or early in June, removing all superfluous growths and ill placed shoots, which may be performed with considerably more expedition and exactness than when after the trees have shot a considerable length. Where, however, a tree is inclined to luxuriancy, it is proper to retain as many of the regular shoots as can be commodiously trained in with any regularity, in order to divide and exhaust the too abundant sap. It will be necessary to review the trees occasionally, in order to reform such branches or shoots as may have started from their places, or taken a wrong direction; also that, accordingly as any fresh irregular shoots produced since the general dressing may be displaced; and, likewise, as the already trained shoots advanced in length, or project from the wall or espalier, they should be trained in close.

In the winter pruning, a general regulation must be observed, both of the mother branches, and the supply of young wood laid in the preceding summer; and the proper time for this work is any time in open weather, from the fall of the leaf in November, until March; but the sooner the better. In performing this work, it is proper to unnail or loosen a chief part of the branches, particularly of peaches, nectarines, apricots, vines, and other trees requiring an annual supply of young wood. First look over all the principal or mother branches, and examine if any are worn out, or not furnished with parts proper for bearing fruit, and let such branches be cut down to the great branch from which they proceed, or to any lower shoot or bottom part, leaving these to supply its place. Likewise examine if any branches are become too long for the allotted space, either at sides or top, and let them be reformed accordingly, by shortening them down to some lower shoot or branch properly situated to supply the place, being careful that every branch terminates in a young shoot for a leader, and not stumped off at the extremity. From the principal or larger branches pass to the shoots of the year which were trained up in summer, first cutting out close all foreright and other irregular shoots that may have been omitted in the summer pruning; likewise all very weak shoots, and those of very luxuriant growth, unless it be necessary to keep some to supply a vacant place. In this pruning, as in the summer dressing, it is of importance to have a strict eye to the lower parts of wall-trees, &c., to see if there is any present vacancy, or any that apparently will soon happen, in which cases, if any good shoot is situated contiguous, it should be trained in, either at full length, or shorten it to a few eyes, to force out two or more shoots, if they shall seem necessary; for precaution should ever be observed in taking care to have betimes a sufficient stock of young wood coming forward to fill up any casual vacancy, and substitute a new set of branches in place of such as are either decayed or stand in need of retrenchment.

Sometimes in wall-trees and espaliers there are many large disagreeable barren spurs, consisting both of old worn out fruit spurs, and of clusters of stumps of shortened shoots projecting considerably from the branches, occasioned by unskilful pruning, when retrenching the superabundant and irregular shoots which, instead of being cut out close, are stumped off to an inch or two long. At this season of pruning, it is advisable to reform them as well as possible, by cutting all the most disagreeable stumps close to the branches, leaving these at full length, especially if apples, pears, &c., and reserve an occasional supply of young wood in different parts, and thus, in two or three years, you may reduce such trees to a regular figure and a proper state of bearing.

Too severe pruning is greatly prejudicial to the health of some sorts of fruit. Plums and cherries, in particular, are often greatly damaged by a too severe discipline of the knife, these trees being very liable to gum by large amputations. It is, therefore, of importance to attend to these trees well in the summer pruning, to retrench all the superfluous and irregular shoots while quite young, and pinch others occasionally where wood is wanted to fill vacancies, so as to require but little pruning out of large wood in winter.—*Johnson's Dict'ry of Gardening.*

The Potatoe.

Solanum tuberosum.

This plant is a native of South America. Two English travellers, Messrs. Caldcleugh and Baldwin, were so fortunate as to meet with it lately in the wild state in Chili, and not far from Monte Video. It is probable that the cultivation of the potatoe spread from the mountains of Chili to the chain of the Andes, proceeding northward and obtaining a footing successively in Peru, at Quito, and upon the plateau of New Granada. This, as Humboldt observes, is precisely the course which the Incas took in their conquests. The potatoe does not appear to have been introduced into Mexico until after the European invasion of that country; and it is well ascertained that it was not known there under the reign of Montezuma, although there are not wanting some who maintain that the potatoe was found in Virginia by the first colonists sent thither by Sir Walter Raleigh. It is said that it was then brought into England by Drake; but it seems well established that long before Drake's time, namely, in 1545, a slave merchant, John Hawkins by name, had introduced tubers of the potatoe from the coasts of New Granada into Ireland. From Ireland the new plant passed into Belgium in 1590. Its cultivation was at this time neglected in Great Britain, until it was introduced by Raleigh at the beginning of the seventeenth century. When the potatoe came from Virginia to England for the second time it was already disseminated over Spain and Italy. It has been ascertained that the potatoe has been cultivated on the great scale in Lancashire since 1684; in Saxony since 1717; in Scotland since 1728; in Prussia since 1738. It was about the year 1710 that the potatoe began to spread in Germany, and that it there became a plant in common use; it had, indeed, before this time been cultivated in gardens; and had even made its appearance at the tables of the rich some time previously. The severe dearth of the years 1771 and 1772, seemed necessary to lead the Germans to cultivate this useful plant upon the great scale. From this time it was shown that it was a substitute for bread; and once fairly introduced, men were not long of perceiving the many recommendations which it possesses as an article of food. In fact, of all the useful plants which the migrations of communities and distant voyages have brought to light, says M. Humboldt, there is none since the discovery of the cereals, that is to say, from time immemorial, which has so decided an influence upon the well-being of mankind. In less than two centuries it may be said literally to have overspread the earth, or to have been welcomed in every country suited to its cultivation, so that at the present day it is found growing from the Cape of Good Hope to Iceland and Lapland. "It is an interesting spectacle," adds the illustrious traveller quoted, "to see a plant, a native of mountains situated under the equator, advance towards the pole, and growing even more hardily than the grasses which yield us grain, brave the inclemencies of the North." The potatoe, like all other tubers, is a collection, an exuberance which is evolved upon the subterraneous stems. Its varieties, which are very numerous, present rather remarkable differences in regard to size, form, colour of the surface and of the interior, taste, and the time which they require to come to maturity.—*Boussingault's Rural Economy.*

The Cincinnati Horticultural Society, at the suggestion of N. Longworth, Esq., have offered two prizes of $100 each, for a new American seedling raspberry and strawberry, which, after thorough trial, shall prove superior to any now in cultivation. Mr. L. offers to pay one half of the premiums.

THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

PHILADELPHIA, EIGHTH MONTH, 1847.

It is a very common observation founded upon the experience of every man who has even begun to grow grey-headed, and whose days have passed with tolerable comfort to himself, that as the wheels of time grow older, they increase in rapidity of motion. It seems but yesterday that we closed the tenth volume of our unpretending paper, and we find ourselves now commencing the twelfth. Of our readers and subscribers, we would have an increased number; we cannot afford to part with any. To them all we tender the good wishes of a *new year:* good crops—good prices, and good farming. We particularly invite our friends to exercise their quills, and give us matter to add to the originality, variety, and interest of our paper.

A late number of the *Southern Cultivator*, published at Augusta, Ga., brings to us the mournful intelligence that James Camak, its Editor, died at his residence in Athens, after a protracted illness, on the 16th of sixth month last, in the prime of his life, being aged about 52 years.

He was well and extensively known as an agricultural writer, and being gifted by nature with a mind of more than ordinary power, his perseverance and industry enabled him to surmount many obstacles, and procured for him a position of high respectability in his native State. His paper had scarcely its superior in the country. The Agricultural Press must acknowledge the loss it has sustained in the early death of such a man. The results of his practical philosophy and active philanthropy, will also be missed by a large community.

A New York correspondent of the *Pa. Enquirer*, under date of the 9th inst., says a committee of fifteen was recently appointed by the Academy of Medicine to examine into the effects upon the general health of the city, caused by the numerous milk manufactories, distilleries, &c., and particularly to report the effect on the human economy, of milk from cows fed on swill.

Wheat flour may be quoted at $5 50 to $6 per barrel, and wheat at $1 20 to $1 25 per bushel—corn 75 to 80 cents—oats 50 to 55 cents. Good old Timothy hay is worth $25 a ton—new, $20.

It is announced in a late number of the *Genesee Farmer*, published at Rochester, N. Y., that it is hereafter to be enlarged from twenty-four to thirty-two octavo pages, the price to remain as heretofore.

We called a few days ago at the "Black Bear" in Fifth street, to look at a *loading rake*, which was contrived, as we are informed, by a person in this city, for the purpose of raking, and at the same time loading hay. The rake is attached to the wagon, both moving together; and instead of the hay being left in the winrow, it, with the rake is raised by means of pulleys, and emptied into the wagon.

A very handsome copy of *Dr. Gardner's Discourse*, pronounced in the third month of last year, before the *American Agricultural Association*, on the *Chemical Principles of the Rotation of Crops*, has been kindly forwarded by an unknown friend, and we have perused it with much interest.

There is scarcely a more important matter to the intelligent and ambitious farmer, than a proper rotation in his crops; one that shall be adapted to his location, his soil, and the market on which he depends for disposing of his surplus produce. *Here* we have corn, oats, wheat, grass: and not a few of our good farmers, have doubts respecting the expediency of following this system so exclusively as we do; but how to improve it, is yet to be explained.

The Talbot County Cattle Show and Fair, will be held at Easton, Md., on the 27th and 28th of tenth month next, for the exhibition and sale of live stock, agricultural implements, &c. Liberal premiums are offered both for stock and good farming. On the second day of the Show, a ploughing match will commence at 9 o'clock, A. M.

The kindness of B. P. Johnson, Secretary of the New York State Agricultural Society, has put us in possession of the premium list and regulations of the Society for the approaching Show, which, it has already been stated in the Cabinet, will take place at Saratoga Springs on the 14th, 15th and 16th of next month. Silas Wright will deliver the Annual Address at two o'clock in the afternoon of the 16th: immediately after which, the Reports of the Premium Committees will be read.

We would ask attention to the list of premiums to be awarded at the Annual Exhibition of our Agricultural Society, at the *Lamb Tavern* on the 14th and 15th of Tenth month next. Our farmers and agricultural implement makers, we trust, will see that we have a fine display of their stock, produce, &c., and thus give a further impulse to their noble calling. The list will be found on page 25.

A disease has appeared among the cattle in some parts of Salem county, N. J., which has been cause of much alarm, and is said to be similar to what appeared in the same neighbourhood a few years ago. Running at the nose, and drooping of the head and ears, are symptoms which attend the disease, and copious bleeding is found to be a principal remedy. We have been told of several farmers who have lost six or eight cattle, and some horses too, have died. It is thought to be contagious.

After the drought and coolness of the spring, we have since harvest, had copious rains and warm weather. The promise of the corn crop is abundant, and there is no lack of pasture. Butter is still, however, high—25 cents to 35 cents. Why is this, now in the midst of the grass season, when butter is mostly plentiful and cheap? Why, but because our farmers find it more profitable to freeze their cream than to churn it, and thus avail themselves of this rapidly increasing demand for the rich produce of the dairy. So be it. In ice creams or butter, we wish them well remunerated for every trouble. If they will only keep up the character of our good city for its butter, and improve it—for there is too much poorly made butter comes here—we will be satisfied to give a good price for it.

The Newcastle County Agricultural Society in Delaware, has offered a premium of $3, or a copy of the *Farmers' Encyclopedia*, to the best *shocker* of grain. This is a judicious proposal. Where wheat is cut before it is sufficiently ripe to place in the barn—and we believe it is always best so to cut it, if practicable—it must be shocked, and it is a nice art to shock well. Rye will stand almost any amount of rain in shock, but wheat requires abundantly more care. Secure shockers are not found in every field.

Our friend John Jones, of Wheatland, Delaware,—who, by the way, is one of Delaware's most enterprising farmers, and who drills in all his wheat and corn, has purchased the right for New Castle county, to Pennock's Patent Drill, and has generously offered to each member of the Agricultural Society, who has paid up all his dues, or to any person who may become such member before the next Exhibition, a right to have one Drill made for his own use.

KEPHART'S PATENT
Fruit and Vegetable Preserver.

An admirable invention, by which fruits, vegetables, &c., viz. oranges, lemons, apples, pears, peaches, &c.—potatoes, green corn, melons, &c., can be kept as long as desirable with all their natural juices and sweetness. Also, butter, eggs and bacon can be kept throughout the year, fresh and sweet, at an expense not greater than in an ordinary warehouse in the city. A full description will be found in the June number of the Cabinet.

The undersigned having purchased the Patent-right for the United States, except the states of New Jersey, Delaware and Maryland, and the cities of New York and St. Louis, offer for sale Patent rights for the construction of the PRESERVER, by states, counties or individual rights, upon terms that will induce all interested in the preservation of the above named articles to purchase rights and construct houses.

FLACK, THOMPSON & BROTHER,
Coates Street wharf, near Fairmount.

All communications will receive prompt attention, if addressed either to PETER KEPHART,
Western Hotel, Baltimore, Md.
Or to FLACK, THOMPSON & BROTHER,
Spring Garden P. O. Philadelphia.

July 15th, 1847.—6t.

FOR SALE,
AT D. O. PROUTY'S
AGRICULTURAL WAREHOUSE,

No. 194½ *Market Street, Philadelphia,*

Corn-Shellers in great variety, price from $1 50 to $30 each; Hovey's Patent Hay, Straw, and Corn-stalk Cutters; Grant's Patent Fan Mills, for chaffing and screening wheat at one operation, warranted to take out cockle, cheat and smut. Also good Fans, for $14 to $18 each.

Whitman's Horse-powers and Threshing Machines, with Straw Carriers and Fan Mills attached; Spain's Improved Barrel Churns, the dashers of which may be taken out to clean. Cheese-presses, &c.; Centre-Draught, Self-sharpening, Right & Left-hand Ploughs, warranted to give satisfaction in their operation.

May 15th—tf.

SEED STORE,
No. 23 Market Street, Philadelphia.

The subscriber keeps constantly a supply of White and Red Clover, and other grass seeds; fresh Perennial Rye-grass, and Lucerne seed. Field seeds, consisting of choice Spring Wheat, Barley, Potatoe Oats, Northern and other seed-corn. Also, in season, Fruit and Shade Trees. Garden and Bird seeds generally. Guano in parcels to suit purchasers.

M. S. POWELL.

Philad., Feb., 1847. tf.

Agency for the Purchase & Sale of
IMPROVED BREEDS OF CATTLE & SHEEP.

THE subscriber takes this method of informing his friends and the public, that he will attend to the purchase and sale of the improved breeds of cattle, sheep, swine, poultry, &c., for a reasonable commission. All letters post paid, addressed to him at Philadelphia, will be attended to without delay.

AARON CLEMENT.

April 15th, 1847.

NEW
Horticultural and Agricultural Ware-house,

84 *Chesnut Street below Third, South side.*

The subscriber has for the better accommodation of his customers, opened the above ware-house, with a large stock of Garden and Field Seeds, crop of 1846. Implements and Books on Gardening and Farming; he calls the particular attention of farmers to his pure stock of Sweede Turnips, Field Carrots, Beets and Parsnips, Pruning Shears, Saws and Knives.

March 14th, 1847.—1y. R. BUIST.

COAL.

THE subscriber has made an arrangement for a constant supply of superior Lehigh and Schuylkill Coal—carefully prepared for family use, which he will furnish *at the usual cash prices*, on application at the office of the Farmers' Cabinet, where samples of the different kinds and sizes may be seen.

JOSIAH TATUM.

Philadelphia, Seventh month 15th, 1847.

COATES' SEED STORE,

No. 49 *Market Street,*

FRESH TIMOTHY SEED,

Of various qualities, from good common seed to the purest and finest that can be produced,

TOGETHER WITH A COMPLETE ASSORTMENT OF

GRASS & GARDEN SEEDS,

Of the finest Quality and best Varieties,—Bird Seeds, &c.

JOS. P. H. COATES,
Successor to George M. Coates.

May 15th, 1847.

☞ SHORT ADVERTISEMENTS,

The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line. Payment in advance.

THE quantity of rain which fell in the 7th month, 1847, was a little more than two inches and three quarters. 2.76 in.

Penn. Hospital, 8th mo. 1st.

We keep on hand at this office, and will supply our friends with Agricultural works generally. Among which are

THE FARMER'S ENCYCLOPEDIA, full-bound in leather;—Price	$3 50
YOUATT ON THE HORSE, with J. S. Skinner's very valuable Additions;	2 00
BRIDGEMAN'S GARDENER'S ASSISTANT;	2 00
THE AMERICAN POULTRY BOOK;	37½
THE FARMER'S LAND MEASURER;	37½
DANA'S MUCK MANUAL;	50
Complete sets of the FARMERS' CABINET, half-bound, 11 vols.	9 50
DOWNING'S Landscape Gardening,	3 50
Downing's Fruits and Fruit Trees of America,	1 50
SKINNER'S Every Man his own Farrier,	50
AMERICAN Poulterer's Companion,	1 25
BOUSSINGAULT'S RURAL ECONOMY,	1 50
FARMERS' & EMIGRANTS' HAND-BOOK,	1 00
MORRELL'S AMERICAN SHEPHERD,	1 00
STABLE ECONOMY,	1 00
BEVAN on the HONEY BEE,	31¼
BUISTS' ROSE MANUAL,	75
THOMAS' FRUIT CULTURIST.	50
SKINNER'S CATTLE & SHEEP DOCTOR,	50
AMERICAN FARRIER,	50
THE FARMER'S MINE,	75
HOARE ON THE VINE,	62½
HANNAM'S Economy of Waste Manures,	25
LIEBIG'S AGRICULTURAL CHEMISTRY,	25
" ANIMAL CHEMISTRY,	25
" FAMILIAR LETTERS,	12½
JOHNSON'S DICTIONARY OF MODERN GARDENING,	2 25

Subscriptions received for Colman's Agricultural Tour—or single numbers sold.

☞ We are prepared to bind books to order.

AFRICAN GUANO.

First quality African Guano, from the island of Ichaboe, warranted genuine. Also a few tons Peruvian

For sale by J. B. A. & S. ALLEN,
No. 7 South Wharves, 2nd Oil Store below Market street.

Philadelphia, March 17th, 1847.

Poudrette.

A valuable manure—of the best quality, prepared in Philadelphia, for sale at the office of the Farmers' Cabinet, No. 50, North Fourth Street, or at the manufactory, near the Penitentiary on Coates' street. Present price, $1 75 per barrel, containing four bushels each, or 35 cents a bushel. Orders from a distance, enclosing the cash, with cost of porterage, will be promptly attended to, by carefully delivering the barrels on board of such conveyance as may be designated. The results on corn and wheat have been generally very satisfactory. Farmers to the south and in the interior, both of this State and of New Jersey, are invited to try it. We are now ready to supply any demand for turnips, buckwheat, &c.

JOSIAH TATUM.

Philada. 8th mo. 16th, 1847.

CONTENTS OF THIS NUMBER.

	Page
Question of Breadstuffs—the demand and supply,	9
Dr. Franklin's mode of learning to Swim,—Club-foot in the Horse,	12
Loss of Beef in cooking.—Comparative nutritive powers of green and dry Fodder for Cattle.—Irrigation,	13
Great yield of Wheat.—Woollen rags,	15
Interesting Agricultural Facts.—Good Advice to Boys.—Manure for Strawberries,	16
Preservation of Timber,	17
A Productive Farm.—Ploughs,	19
Phelp's Durham Cow.—To save Horses from Fire.—Potatoe Disease.—American Institute.—Farmer's Club,	22
Results of Industry.—Fuel in Paris,	23
Mice.—The Potatoe,	24
Agricultural Exhibition, Philadelphia,	25
The Horse.—To prevent Lamps from Smoking,	26
Fresh Peaches in Winter.—Strawberries and Milk.—Pattern Farmer in Belmont County,	27
Root Pruning and Management of Pear trees.—Prices of Breadstuffs in Europe for 30 years past,	28
Good and bad Farming,	29
The Wood-pecker,	30
Bay-side Farming in Talbot Co. Maryland,	31
Pennsylvania Horticultural Society Premiums,	32
Hints to men of business,	34
Pruning,	35
The Potatoe.—Editorial Notices,	37

THE FARMERS' CABINET,

IS PUBLISHED MONTHLY BY

JOSIAH TATUM No. 50 NORTH FOURTH STREET, PHILADELPHIA.

It is issued on the fifteenth of every month, in numbers of 32 octavo pages each. The subjects will be illustrated by engravings, when they can be appropriately introduced.

Terms.—One dollar per annum, or five dollars for seven copies—*payable in advance.*

All subscriptions must commence at the *beginning* of a volume. Having lately struck off a new edition of one or two of the former numbers, which had become exhausted, we are now able to supply, to a limited extent, any of the back volumes. They may be had at one dollar each, in numbers, or one dollar twenty-five cents half-bound and lettered.

For eight dollars paid in advance, a *complete set* of the work will be furnished in numbers, including the 12th volume. The whole can thus readily be forwarded by mail. For twenty-five cents additional, per volume, the work may be obtained neatly *half-bound and lettered.* Copies returned to the office of publication, will also be bound upon the same terms.

By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage.

Joseph Rakestraw, Printer.